NATUR CYMRU
Nature of Wales

Number/Rhif 39 • Summer/Haf 2011

- Retrospectives...
- Puffin Island
- Horses and woodland
- Farm biodiversity
- Competition winners
- News, Books...

Natur Cymru Ltd.
Maes y Ffynnon, Penrhosgarnedd,
Bangor, Gwynedd LL57 2DW, UK.

01248 387373
info@naturcymru.org.uk

Golygydd/ Editor:
James Robertson
naturcymru@gmail.com

Golygydd Cynorthwyol/
Assistant Editor:
Mandy Marsh

Rheolwr Marchnata /
Marketing Manager
Huw Jenkins
01766 590272
huw.naturcymru@btinternet.com

Tanysgrifiadau / Subscriptions:
Gweler y tudalennau canol i gael manylion llawn /
See centre pages for full details.
Unigolyn / Individual:
Safonol/Standard £16.00
Debyd Uniongyrchol / Direct Debit: £15.00
Sefydliad / Organisation: £30.00

Cwmni Cyfyngedig trwy Warant yw Natur Cymru Cyfyngedig, ac nid yw'n gwmni sy'n gwneud elw. Mae wedi ei gofrestru yng Nghymru a Lloegr, rhif 5636217. Nid barn Natur Cymru Cyfyngedig neu'r Golygyddion a leisir yn y cylchgrawn hwn o angenrheidrwydd.

Natur Cymru Limited is a non-profit making Company Limited by Guarantee, registered in England and Wales, no. 5636217. The views expressed in this magazine are not necessarily those of Natur Cymru Limited or of the Editors.

ISSN 1742-3740

NATUR CYMRU
Nature of Wales

Cyhoeddir *Natur Cymru* bedair gwaith y flwyddyn, mis Mawrth, mis Mehefin, mis Medi a mis Rhagfyr. Cyhoeddir erthyglau yn yr iaith wreiddiol. Mae crynodeb yn yr iaith arall yn dilyn pob erthygl. Ceir rhai colofnau arferol yn y ddwy iaith. Os dymunwch gael cyfieithiad o unrhyw erthygl, cysylltwch â'r golygydd.

Bwriedir i *Natur Cymru* hyrwyddo a chyfnewid gwybodaeth am fioamrywiaeth a hyrwyddo dadl. Os oes gennych wybodaeth, erthyglau neu waith celf y credwch a allai fod o ddiddordeb i'r darllenwyr, cysylltwch â'r Golygydd os gwelwch yn dda.

Natur Cymru is published four times per year, in March, June, September and December. Articles are published in the language in which they are submitted. They are followed by summaries in the other language, and some regular columns appear in both languages. If you would like to receive a translation of any article, please contact the editor.

Natur Cymru is intended to promote the exchange of information about biodiversity and encourage debate. If you have information, ideas for articles or artwork which you think might be of interest to readers, please contact the Editor.

Caiff *Natur Cymru* ei ystyried fel cyhoeddiad swyddogol NATUR, Sefydliad Rheolaeth Cefn Gwlad a Chadwraeth Cymru.
Natur Cymru serves as the official publication of NATUR, the Welsh Institute of Countryside and Conservation Management.
Cyswllt / Contact: Marie Madigan, Swyddfa NATUR Office, PO Box 192, Priory House, Penmon, Biwmaris, Ynys Môn LL57 9BY
Ffôn / Tel: 07837 419995. www.natur.eu.com. marie@natur.eu.com

Argraffwyd yn y DU gan Cambrian Printers Ltd. Achrediad ISO-14001 a Systemau Rheoli Amgylcheddol blaenllaw. Argraffwyd ar bapur ffynonellau cymysg yr FSC Mwydion o goedwig a ardystir gan yr FSC. Ffynonellau a reolir, heb gynnwys coedwigoedd annerbyniol. Rhif cadwyn gwarchodaeth TT-COC-2200. www.fsc-uk.org

Printed in the UK by Cambrian Printers Ltd. ISO-14001 accredited with award winning Environmental Management Systems. Printed on FSC mixed sources paper. Pulp from an FSC-certified forest. Controlled sources, which exclude unacceptable forestry. Chain of custody number TT-COC-2200. www.fsc-uk.org

Llun y clawr/Front cover: Ten Terns by Alastair Robertson. *Natur Cymru* is ten years old; RSPB started life in Wales protecting Roseate Terns on Llanddwyn Island, Anglesey, 100 years ago. Read about our cover artists on pages 20-26, and the inside back cover.

Dylunio gan/Design by: Mel Parry Design, melparry1@tiscali.co.uk

NATUR CYMRU CYNNWYS • CONTENTS

Golygyddol / Editorial ..... 2 - 3
James Robertson

Ten years - where did it go? • Iolo Williams ..... 4 - 7
Reflections on a decade in conservation

Puffin Island revisited • Steve Dodd and Rachel Taylor ..... 8 - 12
Birds benefit after rats are removed

Welsh agri-environment schemes and biodiversity • David Harries ..... 13 - 17
Changes set to damage environment

Fire-fighting • John Harold ..... 18 - 19
Inspired By Nature competition winner

The first 10 years • James Robertson ..... 20 - 26
A decade as magazine editor

60ain Mlwyddiant Parc Cenedlaethol Eryri • Twm Elias ..... 27 - 30
Cnoi cil dros y dyddiau a fu

Beetle bling: warriors of chaos • Paul Sinnadurai ..... 31 - 33
Unexpected pleasures in a beetle study

Graig Goch • Frances Voelcker ..... 34 - 35
Inspired By Nature competition winner (2nd prize)

Horses and community woodland • David Williams ..... 36 - 39
Old traditions enrich a new town

NODWEDDION ARFEROL / REGULAR FEATURES

Nature at Large • Bob Dennison 40
Pine martens in Wales

Green Bookshelf • David Saunders 41

Cymru a'r Byd / Wales and the World • Lara Hallet ..... 42 - 43
Maint Cymru / The Size of Wales

Discoveries in Science • Dr Michael Wilson 44
The Americans arrive in Wales

Woods and Forests • Dr Helen Cariss 45
Solutions to flood risks

Islands Round-up • Lisa Morgan, Geoff Gibbs ..... 46 - 47
Ramsey Island, Skokholm, Bardsey

Hysbysfwrdd / Noticeboard • Mandy Marsh 48

NATUR CYMRU GOLYGYDDOL

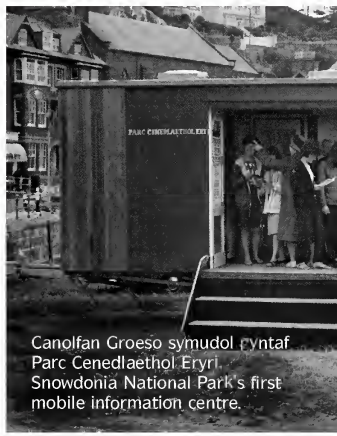
Imi, mae darllen am fyd natur yn therapi. Nid cystal â mentro allan i'w ganol, ond profiad gwerthfawr serch hynny. Mae rhywfaint o hanes amgylcheddol yn rhoi cyd-destun a phersbectif i faterion amgylcheddol y dydd. Yn ystod y 60 mlynedd diwethaf, mae Parc Cenedlaethol Eryri wedi troi'n fusnes mawr. Ond mae'r problemau a wynebai'r Parc yn 1951 yn gwneud i bryderon y presennol ymddangos yn bitw, fel y dywed Twm Elias.

Efallai fod newidiadau dros gyfnod o ddeng mlynedd yn fwy cymedrol, ond maen nhw'n bodoli serch hynny. Rydw i wedi bod yn ailddarllen rhai o erthyglau cynnar Natur Cymru, yn enwedig rhai sy'n sôn am bolisïau amaethyddol. Bellach, mae'r amgylchedd yn bwysig mewn cymorthdaliadau amaethyddol yng Nghymru. Mae nifer o ffermydd yr ucheldir wedi elwa ar gynlluniau fel Tir Gofal a thaliadau y pen ar gyfer da byw sydd, gyda'i gilydd, wedi esgor ar 'y taliad sengl'. Ond mae'r weledigaeth amgylcheddol sy'n mynd â bryd Mick Green (Going Wild in the Uplands, Rhif 2) ymhellach o'n cyrraedd nag erioed. Mae'r bryniau'n dal i atsain gan frefu defaid, ac maen nhw yr un mor foel ag erioed (oni bai eu bod wedi'u gorchuddio gan blanhigfeydd conwydd). Yn yr un modd, mae dymuniad John Good o gael dull mwy integredig o ymdrin â choedwigoedd a thiroedd fferm (Forests and Farms – Breaking Down the Barriers, Rhif 3) ymhell o gael ei wireddu.

Ond rydym wedi gwneud cynnydd. Mae'r Comisiwn Coedwigaeth a'i chwaer-asiantaethau wedi datblygu llawer ers y dyddiau pan gâi coed eu plannu'n ddidor o un wal i'r llall. Mae'r ffaith fod cymaint o ddicter tuag at y bwriad o werthu coedwigoedd cyhoeddus – a barodd i griw San Steffan newid eu meddyliau'n llwyr yn gynharach eleni – yn arwydd o hyn. Mae Tir Gofal wedi bod o fudd mawr i fioamrywiaeth, ac mae hyn yn wir ar fy fferm i. Ond y cwestiwn yw – a fydd modd amddiffyn y buddion amgylcheddol yma, ynteu a fyddan nhw'n diflannu dan Glastir, y cynllun newydd, pan fydd newid hinsawdd a'r ofn ynghylch prinder bwyd yn gosod yr agenda a phan fydd dal carbon a rheoli dŵr yn cael blaenoriaeth? Mae David Harries yn disgrifio'i brofiad ef o ffermio. Stori galonogol; ond mae ei bryderon ynghylch y dyfodol yn amlwg. Pan fydd Gweinidog dros yr Amgylchedd yn gwrando ar un lobi ffermio, fel y gwelwyd yn ddiweddar, gall taliadau amgylcheddol droi'n ddim mwy na ffrwd arall o gymorthdaliadau cymdeithasol yn hytrach nag yn fuddsoddiad hirdymor mewn amgylchedd gwell i bobl a natur. Gobeithio y bydd y Gweinidog newydd dros Amaethyddiaeth yn esgor ar bethau gwell.

Naws fyfyriol sydd i dair erthygl. Mae Iolo Williams yn cnoi cil dros ffawd byd natur yn ystod y deng mlynedd diwethaf, a'r bygythiadau sy'n ei wynebu – y cynnydd yn nifer pobl yn bennaf. Hefyd, mae'n rhestru'r arwyr – gwirfoddolwyr, yn aml – sy'n gweithio ar flaen y gad ym maes cadwraeth. Yn fy nhyb i, mae Iolo ei hun ar frig y rhestr. Ddeng mlynedd yn ôl, mi sonion ni am ddifa llygod mawr ar Ynys Seiriol. Yma mae Steve a Rachel Dodd yn cyflwyno'r diweddaraf am y gwaith. Hefyd, rydw i wedi manteisio ar y cyfle i gnoi cil dros fy neng mlynedd fel Golygydd.

Gall byd natur ddod â chymunedau at ei gilydd, fel y dengys David Williams. Yn ei enghraifft ef, ceffylau a ddaeth i'r adwy. Hefyd, gall cystadleuaeth ddod â chylchgrawn at ei gilydd. Mae'r gystadleuaeth Natur yn Ysbrydoli wedi esgor ar erthyglau gwirioneddol wych. Am yr ail flwyddyn yn olynol, cafwyd erthyglau o'r radd flaenaf. Diolch i'r beirniaid eraill, Gillian Clarke (ein Bardd Cenedlaethol) ac Andrew Forgrave (gohebydd y Daily Post), a diolch yn arbennig i bawb a gymerodd ran. Bu'n therapi o'r fath orau.



Canolfan Groeso symudol cyntaf Parc Cenedlaethol Eryri. Snowdonia National Park's first mobile information centre.

James Robertson

NATUR CYMRU EDITORIAL

For me, reading about nature is therapy; not as good as getting out in the natural world, but valuable all the same. A bit of environmental history adds context and perspective to current environmental issues. Snowdonia National Park has had 60 years to grow up from small concern to big business. Yet some of the issues which the Park faced back in 1951 make present-day concerns seem minor by comparison, as Twm Elias explains.

The changes over ten years may be more modest, but they are still discernable. I have re-read some of the early articles in *Natur Cymru*, particularly those dealing with agricultural policy. The environment has become an important element in agricultural subsidy in Wales. Many upland farms in particular benefitted from schemes like Tir Gofal, coupled with livestock 'headage' payments, which have become 'single farm payments' but, truth be told, the environmental vision on which Mick Green set his sights (Going Wild in the Uplands, No 2) is further away than ever. The hills are still alive with the sound of sheep bleating, and as bald as ever (where not cloaked in conifer plantations). Similarly, John Good's hope of a more integrated approach to forests and farmland (Forests and Farms – Breaking Down the Barriers, No 3) is still a distant one.

APCE

Yet progress has been made. Forestry Commission Wales and its sister organisations have come a long way from the days of missionary planting of wall-to-wall trees; the outrage at plans to sell off the English public forests, which forced a dramatic Westminster U-turn earlier this year, were the rewards of this enlightenment. Tir Gofal has brought real benefits for biodiversity, as I can demonstrate on my own farm. The question is, will these environmental benefits be preserved, or will they disappear in a reshaped scheme, Glastir, when climate change and perceived food shortages set the agenda, and carbon capture and water management become the priorities? David Harries describes his own farming experience. His story is uplifting, but his concerns for the future are telling. When an Agriculture Minister listens only to a particular farming lobby, as recently, environmental payments become just another stream of social subsidy, not a long-term investment in a better environment for people and nature. With a new Agriculture Minister, we can hope for better things.

Three articles have a reflective tone. Iolo Williams considers the mixed fortunes of nature over ten years and the threats nature faces, not least in ever-increasing human numbers. He rightly cites the many heroes, often volunteers, who work on the front lines of conservation. He is at the top of my list of environmental heroes. Ten years ago we covered the story of the eradication of rats from Puffin Island. Here Steve and Rachel Dodd bring the story up to date. I have also taken the opportunity to reflect on ten years as Editor.

Nature can bring a community together, as David Williams shows; in his example, a little help came from heavy horses. A competition can bring a magazine together; the Inspired by Nature competition has added some outstanding writing to the mix of articles. The standard of entries was, for the second year, humbling. My thanks go to the other judges, our National Poet Gillian Clarke, and Daily Post journalist Andrew Forgrave; and especially to all those who entered the competition, providing me with so much enjoyable therapy.

James Robertson

Ten years - where did it go?

Iolo Williams

Despite the heroic efforts of many volunteers on the conservation front line, and some striking successes, nature in Wales has not had a good ten years. As well as present disappointments, there is the shadow of an ever increasing human population, concludes ***IOLO WILLIAMS.***

Flicking through the pages of *Natur Cymru*'s first edition it seems like yesterday. Time has flown. So many things have happened yet, sadly, so little has been achieved, lots of words but little action.

The article about Puffin Island, from that first edition back in 2001, tells the tale of CCW, RSPB and the landowner working together to remove the rats so the puffins and other seabirds could once more flourish. In the space of 90 years the population had crashed from 'at least 2,000' to 'less than 20 pairs' and the brown rats were thought to be the main cause for their demise. I remember how we laid down two and a half tonnes of warfarin and the population of an estimated 110,000 rats was eliminated.

Recently I returned with a camera crew expecting to land on a sea bird paradise but, unfortunately, the absence of rats had done little to

Mandy Marsh

Eider family on the Menai Strait

increase the number of puffins. The first thing that struck me was the rank vegetation. The elder forest had expanded, brambles were everywhere, grasses literally up to your armpits and nettles thick and tall. The rats had certainly gone but, in their absence, the vegetation had become so tall that we would need to interfere again. There is now talk of introducing goats to keep down the vegetation. This, I think, is an excellent idea, provided we send a single sex population!

Whilst the overall picture on Puffin Island was disappointing, I was really pleased to find five eider duck nests within 10 minutes of landing on the island. This was a first for me – no longer can the north east of England boast of having the most southerly nesting eiders. We now have a small but flourishing population in Wales.

Greatest success

Looking back over the decade, to me the biggest success in conservation has to be the greater awareness and understanding of nature amongst children. In my schooldays the fact that I was interested in wildlife made me an oddity. Nowadays children are far more aware about the importance of not only wildlife, but also sustainability, recycling, green energy and the need to reduce our impact on the world. This is thanks to improved education. Ironically, however, at a time when our children are more aware of their environment, fewer are actually getting out into the countryside to enjoy its benefits, preferring instead to remain indoors playing computer games.

In broadcasting the major achievement has been getting Welsh wildlife onto 'network TV'. In the past we might occasionally have seen a fleeting mention given to Skomer but otherwise it would be return visits to East Anglia and the Scottish islands. Now, *Springwatch* regularly visits Wales and Welsh items often feature on programmes such as *The One Show*. It's as if the producers have suddenly awoken to the fact that Wales does exist and that it is, in fact, full to the brim with fantastic wildlife and landscapes.

Disappearing wildlife

My greatest disappointment over the past decade has been the continued ineffectiveness of politicians. By this I mean not only those at Westminster and Cardiff Bay but also the characterless individuals who sit in power at the head of many of our conservation organisations. They are forever developing strategies, action plans, frameworks,

Mandy Marsh

Natur Cymru prize-giving at the Royal Welsh Show, 2010

Paul Kay

committees and sub-committees, but are we seeing more diversity in our hedgerows, more fish in our rivers, more hay meadows and more bums on eggs? No, we are watching our wildlife disappear in front of our eyes as they sit and talk about what should be done rather than getting on and doing it. There are wardens all over Wales who are champing at the bit to get the job done but constant bickering, petty politics and ridiculous regulations often prevent them from doing so.

There are a lot of heroes out there, many of them volunteers, working in the front lines of conservation. Knowledgeable, hard-working individuals committed to the cause as opposed to the career ladder. There are superb examples of what can be achieved at various reserves around the country, places such as Ynys-hir, Malltraeth Marsh, New Grove Meadows and Cwm Idwal. It's expensive to undertake such intensive work but it provides excellent examples for others to follow and far more has been achieved in this manner than by the futile attempts to influence government policy.

In the late 80s, at a time of great wealth, conservation appeared to be high up the political agenda but since then it has virtually disappeared, not just in Wales but in Westminster and Europe too. Glastir, our latest attempt at an all-Wales agri-environment scheme, is a complete waste of time for wildlife and farmers alike, and the proposed amalgamation of our conservation agencies is nothing more than a cost-cutting exercise.

Biggest disappointment

My biggest personal disappointment in the Welsh countryside has been the profusion of wind farms. I have campaigned and spoken out against them on many occasions, but to no effect. I am convinced that we have gone down a blind alley and that if we had spent the billions that have gone into wind farms on putting solar panels on every suitable roof in Wales, we would be a lot better off. I don't mind the idea of a community wind turbine but these monstrous farms are commercial undertakings desecrating the few remaining wild spots of Wales. Last week a neighbour of mine told me ...'if we put more turbines here, next time we have a force 10 gale, Montgomeryshire will end up in Norfolk'. It goes without saying that we should all be using far less energy than we do.

Farmers are hugely important to us, both for food and the future of our wildlife, they own the land and we have to work together. They need to make a living just as we all do and we need to understand their point of view and speak their language. They come in for a lot of stick from conservationists but

they are driven by farming policies. They are asked to feed an ever-expanding world population, a job they do very effectively, but wildlife invariably suffers. To make matters worse, just when we start to make progress with one set of policies, such as Tir Gofal, we move the goalposts with Glastir.

Relentless expansion of the human population

Looking to the future the single greatest threat is the relentless expansion of the human population. If I could wave a magic wand, I would halve it overnight and hold it at that level. There is increasingly less space for wildlife, and the finite essentials of life, such as clean air and water, are being stretched to the limits. Everyone seems to duck the issue but it's the nettle we have to grasp, the situation is getting worse by the day. Britain is already amongst the most densely populated countries in Europe yet we seem to acquiesce in the predictions of adding an extra 10 million people to our population over the coming 40 years. Where are they all going to go? I'm afraid I don't have the answer, but neither do the politicians.

No grizzlies nor gorillas but Wales is best

I've been lucky enough to be paid to travel and see some of the great wildlife spectacles of the world, such as grizzlies in Alaska feeding on salmon and the mountain gorillas in Uganda with their incredibly human-like behaviour. Yet every time I come back I realise that for all-round variety you can't beat Wales. In the space of two hours I can walk from mountain top across moorland, along a stream, down through deciduous woodland, coniferous woodland, through farmland, by a river, through a marsh onto a dune, along an estuary and on to the sea. From a wildlife point of view we live in the best country in the world.

As for *Natur Cymru*, I think it's a wonderful resource. It hits that middle ground between magazines such as BBC Willdife and the journals. Journals can be useful but heavy-going. In-depth analysis of the spatial distribution of a species in eastern Mongolia is not for me, whereas *Natur Cymru* has the right mix of wildlife, issues, habitats and it's Welsh – it talks to me in my language about my land. To me it works well, so please keep going for the next ten years!

Paul Kay

***Iolo Williams** is a well-known broadcaster and champion of nature in Wales.*

Degawd o dranc…

Cymaint o weithgaredd, cyn lleied o ganlyniadau. Hanes cadwraeth natur yng Nghymru dros y ddegawd ddiwethaf. Dyna gasgliad Iolo Williams. Bu llwyddiannau, wrth gwrs, fel gweld hwyaid mwythblu yn nythu ar Ynys Seiriol – y boblogaeth fwyaf ddeheuol bellach ym Mhrydain. Ac o ran codi ymwybyddiaeth mae dealltwriaeth plant ysgol o bwysigrwydd yr amgylchedd, a'r sylw cynyddol a roddir i fyd natur Cymru yn y cyfryngau torfol i'w croesawu. Ond mae aneffeithlonedd gwleidyddion ac arweinwyr mudiadau cadwraeth yn dorcalonnus. Pa werth eu strategaethau a'u pwyllgorau di-rif? Mae byd natur yn dal i ddiflannu wrth iddyn nhw siarad yn ddiddiwedd am yr hyn y dylid ei wneud a thrafod uno cyrff er mwyn arbed arian.

Gwaith ymarferol gan rai sy'n ymroi i warchod ein hamgylchedd, yn hytrach na hyrwyddo'u gyrfaoedd eu hunain, sydd wedi dwyn ffrwyth. Ofer yw ceisio dylanwadu ar wleidyddion sydd wedi hen anghofio am gadwraeth ac sydd wrthi'n creu cynlluniau di-werth fel Glastir. A pha ffwlbri arweiniodd at yr holl ffermydd gwynt? Oni fyddai wedi bod yn ddoethach gwario'r un arian ar osod paneli ynni amgen ar bob to addas ledled Cymru?

Mae twf y boblogaeth ddynol yn fygythiad anferthol. Beth fydd effaith ychwanegu 10 miliwn o bobl at Brydain orlawn dros y 40 mlynedd nesaf? Does neb i weld â diddordeb yn y pwnc allweddol hwn. Ond er y pryderon, y bygythiadau a'r siomedigaethau mae Cymru yn dal i fod ymhlith y gwledydd mwyaf amrywiol yn y byd ac mae'n fraint cael byw yma.

Mike Alexander

Puffin Island revisited

Puffin Island, off the coast of Anglesey

In the very first edition of Natur Cymru *(Summer 2001) John Ratcliffe and Wil Sandison described a challenging but successful operation to remove a large rat population from Puffin Island off the Anglesey coast. Ten years on,* ***STEVE DODD*** *and* ***RACHEL TAYLOR*** *describe how the island and its seabird colonies have changed in the absence of rats, and what it is like to run the gauntlet of Puffin Island's gulls, guillemots and cormorants.*

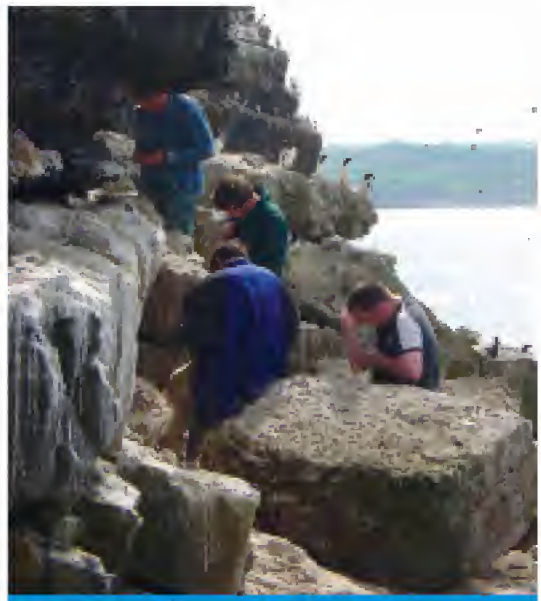
"Absolute quiet, please. Everyone stay together and keep moving until I tell you we're clear." The sun glitters off a sapphire sea as we scramble carefully, laden with equipment, across the barnacled boulders below the cliff. One member of the team slips, swears in an undertone at his scraped ankle, and we all pause instinctively and look up for a moment at the limestone shelf high above our heads – a shelf tightly packed with rank upon rank of disapproving, yawping, neatly uniformed chocolate-and-white guillemots. They are gazing down at us, and we know that under and amongst and behind and between them, the shelf may hold 200 scrawled bluish eggs and perhaps the small woolly ball of an early chick. We must not startle them. If we startle them they will dive off that shelf towards the friendly sea like a waterfall of brown bodies – and they are not careful, in such a rush, to step over or around those precious but awkwardly large eggs. But we have done this

before, and our pause, our slow, careful passing-by, relaxes the shelf of watchers and the moment (and the team) passes without incident.

Puffin Island is owned by the Baron Hill Estate, which kindly gives us permission each year to carry out our careful monitoring studies. A small island, about 1km long and 300 metres wide, it is separated from the east coast of Anglesey by a kilometre or so of dangerously tidal and shoaly sea. It is an outcrop of blocky and eroded limestone cliffs softened on the south side by shale slopes, reaching a little over 55 metres at its highest point. Much of the edge of the island has relatively short and sparse coastal vegetation, but the centre is dominated by the largest elder forest in Europe, impenetrably tangled with brambles and luxuriant nettles.

SCAN (Shropshire Conwy ANglesey) ringing group has ringed over 19,000 birds on the island, resulting in almost 1000 recoveries, plus 870 recaptures of previously ringed birds. This effort has given us tremendous insight into the movements of the main species breeding on the island, although for pelagic species such as kittiwake many mysteries remain, since few birds are ever recovered. Additionally we have a much better idea how long many of these birds live, and some insight into the level of interchange with other seabird colonies. Beyond this, the totals of birds we ring each year help to supplement and refine the colony monitoring counts performed by CCW from a boat.

The Great Cormorant colony on the south side of the island is among the largest in the UK, with approximately 700 pairs. Their breeding is asynchronous, with many pairs feeding large prehistoric-looking chicks while others are still incubating their surprisingly small, chalky white eggs in loose nests of twigs and guano. We make a single visit per year to this part of the island, ringing a sample of 250 chicks (another 50 also are fitted with engraved colour rings). The parents of the smallest chicks are most belligerent, eyeing us and



Steve Dodd

Working hard amidst the guano

Steve Dodd

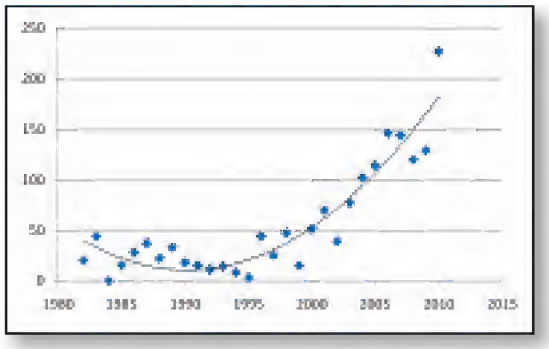
Shag

posturing with wings spread, 'carking' harshly in disapproval. Ring recoveries of immature birds are scattered south-eastwards through England and into France, Spain and even Italy. Many chicks die during their first two years, many individuals being shot to protect private fisheries. The colour-ringing project began five years ago to shed light on this aspect of the cormorants' lives – specifically to generate more data on how long individuals stay at particular sites while they are away from the breeding colony (BTO metal-ringed individuals are usually only recorded when they die). The oldest individual we have recorded so far from the island was found dead 21 years after ringing.

The smaller, greener shags nest amongst the boulders. Some of the adults stay put as we approach, the males headshaking and honking loudly to frighten us away. Some of these we catch, to ring, or to read a ring they already wear. Their bright emerald eyes stare unblinkingly at us while we admire their deepest green silky backs and avoid their bite. These chicks have thicker down than cormorants and have a greyish hue, looking slightly less prehistoric than their cousins. Recoveries illustrate how this species stays within the Irish Sea, nearly all Puffin Island birds being found on the coasts of Wales.

In 2001, there was concern that rats (swimming from wrecks or from the mainland) might have caused declines in breeding puffins. CCW and RSPB (with support from the landowner) carried out a programme of rat eradication. This has been extremely successful, and to this day there is no evidence of rats on the island. The annual counts of puffin suggest a slow recovery, although the numbers of razorbill chicks we ring each year tell a much more dramatic story! (see figure). Guillemots have increased even more dramatically. Ten years ago, nearly all nested on the most inaccessible vertical cliff faces (beyond the reach of both rats and ringers); while in recent years as the colony has grown, there are several subsections of the colony on flat cliff ledges protected by overhangs.

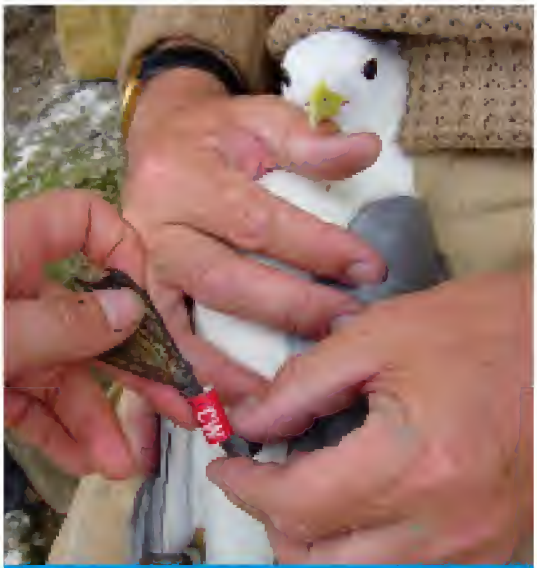
Numbers of Razorbill chicks ringed each year on Puffin Island.



Kittiwakes are the other abundant seabird we ring on the island. They tuck their tidily-maintained nests into the smallest ledges on the overhanging frown of the northern side of the island, some barely a bird's length apart or only a metre above their neighbours. Many chicks can be ringed by climbing a long ladder to the lower nests, from ledges around the base of the cliffs, while we catch adults using a soft nylon noose on a long pole. The adult birds are fitted with a red individually-engraved colour ring, which allows us to identify individuals in subsequent years without needing to recapture them. This study is part of the BTO's Ringing Adults for Survival (RAS) scheme – a minimum of 20 individuals must be 'recaptured' (their rings read and recorded) in each subsequent year to calculate annual survival rates. From our ringing effort and capture rates there seems to have been a decline in kittiwakes over the last decade, although not so pronounced as has been seen in some of the Scottish colonies. A PhD student at

Rohan Holt

Steve Dodd



Kittiwake, colour ringed

Liverpool University is currently analysing this data set for Puffin Island to see if there are any trends in adult survival which may be affecting the size of the colony.

Undoubtedly the seabird colonies on the island have benefited since the rats were eradicated a decade ago, but there is some concern about changes in the island's vegetation. Rabbits had already disappeared from the island in 1955 after the introduction of myxomatosis and, with the loss of rats, there is nothing to control the vegetation. The elder forest is expanding: and more importantly the rank, nitrogen-loving vegetation around its margins is becoming more extensive. The centre of the island, once grassy and ideal for breeding gulls, is filling with bramble and nettles, pushing the Greater and Lesser Black-Backed Gulls closer to the clifftops and into greater conflict with other seabirds. This tall vegetation is also too thick for puffins – lovers of sheep-nibbled turf – to dig their nesting burrows at the tops of the cliffs. This may be the reason why puffins have not yet responded as dramatically as their cousin guillemots. After considerable discussion there is a strong possibility of grazing the island to manage this vegetation and redress the balance between birds and brambles, with loaned Orme goats the most likely candidates for the job.

In 2010, with many seabird colonies around northern Britain in serious decline, research on Puffin Island's seabirds opened a new chapter with the formation of a research partnership between two Universities (Liverpool and Bangor), the RSPB and SCAN Ringing Group. Under this partnership an MSc student carried out regular monitoring of about 30 nests of each of the key species on the island, in an attempt to formally measure breeding productivity. Meanwhile a PhD student began a novel search for the key fishing areas for breeding shag and kittiwake. A small number of adult birds were fitted with tiny GPS dataloggers (glued to feathers on their backs) which record their location every few minutes for up to four days. Upon retrieval, these can

Ynys Seiriol – wedi degawd

Talp o galchfaen oddi ar Ynys Môn yw Ynys Seiriol. Yn ei chanol mae'r goedwig ysgaw fwyaf yn Ewrop. Ers 30 mlynedd bu criw wrthi'n modrwyo adar sy'n nythu yno, er mwyn dysgu mwy am eu bywyd a'u symudiadau. Maen nhw wedi gorfod dringo llethrau peryg, cael eu cleisio gan greigiau, eu peltio gan faw a chyfog adar a'u crafu gan bigau ffyrnig – ond maen nhw hefyd wedi teimlo'r fraint o weithio yng nghanol ein bywyd gwyllt bendigedig.

Dysgwyd bod rhai o'r adar ifanc o blith y 700 o fulfrain yn gwasgaru mor bell â Sbaen a'r Eidal, er bod llawer o gywion yn marw yn ystod y 2 flynedd gyntaf, ond bod mulfrain gwyrdd yn cadw'n agos at lannau Cymru. Gwelwyd bod clirio llygod Ffrengig o'r ynys yn 2001 wedi achosi cynnydd sylweddol yn niferoedd gwylog a llurs ond llai o gynnydd yn achos y palod. Efallai mai'r newid yng nghyflwr y llystyfiant, ar ôl clirio'r llygod, sy'n gyfrifol am hyn. Mae llwyni ysgaw, glaswellt bras, mieri a danadl wedi lledu dros ganol yr ynys gan wthio'r gwylanod at y cyrion, a'u gorfodi i gystadlu gydag adar eraill, ac mae'r tyfiant trwchus yn atal palod rhag palu tyllau newydd. Mae'n amser, efallai, i ail-gyflwyno pori.

Mae'r ymchwil yn datblygu o hyd a gwaith newydd yn dangos pwysigrwydd ardaloedd bwydo sydd tu hwnt i ffiniau safleoedd dynodedig – megis ceg yr afon Conwy, ar gyfer y mulfrain gwyrdd.

Steve Dodd

Razorbill

generate maps showing where the bird has been throughout the intervening time, and for how long. This is vitally important work, since although key seabird colonies are protected, their equally important key feeding areas remain unidentified and potentially vulnerable. From this challenging first year's work, the 20 loggers retrieved from shag highlighted key fishing areas around the mouth of the Conwy, and areas to the east of Puffin Island. Kittiwake logger results were more complex: many fished along quite a length of the north and east coasts of Anglesey, while one individual (tracked on a fishing excursion during incubation), twice travelled halfway across to Ireland. SCAN ringers voluntarily involved in the project had to be even more creative than usual as the smart and wary shags dislike being recaptured to retrieve their loggers.

The island has changed in the decade since the rats were removed, to the benefit of almost all of its noisy, smelly, bickering and beautiful birds. As you read this, members of SCAN will be preparing to visit Puffin Island for the 30th year running to ring seabirds on the island. The experience is not for the faint-hearted, with the cormorants breeding on steep, friable shale slopes, and auks among the shelves and overhangs of the limestone cliff faces. The ringing team will sweat under ladders, scramble up cliffs and cringe below whining fulmar, wearing an odd collection of hard-used clothes, since by the end of the day we will all be liberally decorated with guano and fish remains: most of these clothes will be honourably 'retired' at the end of the day. All of us will stink this evening. Some of us will get wet climbing into the boat. And all of us will be bruised by the harsh rocks, and scratched and bitten by the birds themselves – the powerful, growling razorbills, hook-billed shags, clawed cormorant chicks and even those elegant guillemots. And all of us will be happy and grateful for the privilege.

***Steve Dodd** has been an active ringer with SCAN since the early 1980s, and has visited Puffin Island most years since 1982, usually two or three times. He has worked for RSPB in their research section for eight years. **Rachel Taylor** has been involved with ringing since 2002, and works on research projects at Bangor University.*

Acknowledgements
Thanks to Baron Hill Estate for access permission and Dave Jones for transport to and from the island.

Welsh agri-environment schemes and Biodiversity

All photos: David Harries

Common Knapweed *Centaurea nigra* in late summer

DAVID HARRIES
contributes a personal perspective from a small farm in west Wales on his experience of farming in the Tir Gofal agri-environment scheme and the challenges for the future.

Somerton farm is a 20 hectare, neutral-grassland holding in South Pembrokeshire which, from the late 1940s (and probably well before), was managed as a traditional lowland mixed farm. Stocking comprised a breeding flock of 50 sheep (mostly Suffolk and Border Leicester) together with 20 or so beef cattle (usually Hereford cross or Aberdeen Angus) bought in during the spring for finishing and sale by late autumn. Farm records show a variety of crops grown through the 1950s and 60s including black oats, barley, early potatoes and the occasional plot of kale. Hay crops were taken to support the sheep during the winter.

By the mid 1970s, the farming activity had extensified to that of a 'dog and stick' enterprise, managed by a man and a dog without the need for expensive equipment and costly inputs. It was focused on summer grazing of cattle with some hay-cropping. The former arable fields had by then reverted to permanent pasture with limited input of fertilizer, sufficient to maintain adequate grass production.

Dexter Cattle

By the 1980s my wife, Holly, and I were in the happy position of living on the property although it was farmed by others. In 1990/91 we carried out our first significant projects to enhance the farm's biodiversity interest with the planting of 2 hectares of broadleaved woodland (with the support of the Woodland Trust) and the establishment of a substantial pond (supported by a County Council landscape grant).

In 1997 a chance opportunity to buy two Dexter cows led to our decision to dip a toe into farming with the intention of managing the farm for nature conservation and biodiversity. Not entirely a step into the unknown, as I was brought up on the farm (though worked in industry for 30 years) whilst Holly, with a professional background in nature conservation, had plenty of experience in the management of nature reserves, usually involving farm livestock.

As the farm has developed our pedigree Dexter suckler herd has expanded to around 30 animals and we have a network of local customers for our finished beef. The cattle are slaughtered, and the meat butchered and packed, within Pembrokeshire, so we minimize the 'food miles' associated with the product.

The cattle remain out of doors throughout the year, and take advantage of hedges and scrub areas for shelter in poor weather. As Dexters are significantly smaller than most other cattle breeds, their feet do far less damage to the ground during wet weather.

Throughout our involvement, and in company with most Welsh livestock farms, we have relied on financial support from the Single Payment Scheme (and its predecessors) to remain viable. This continues to provide a valuable contribution to the farm income – though concerns exist regarding the future of these payments post 2013.

Tir Gofal

With impeccable timing the Tir Gofal agri-environment scheme was launched by the Welsh Assembly Government in 1999. We saw this flagship scheme, as it was then heralded, as the ideal way to support our conservation objectives.

The farm entered Tir Gofal the following year and immediately benefited from capital works to help improve the infrastructure of the farm, especially gates, fencing and water troughs. Annual payments compensated for the lower stocking levels associated with the low-input farming necessary to protect the integrity of the semi-natural grassland and the 'in conversion' semi-improved grassland and hayfields.

With our contract due to finish early in 2010, we successfully applied for an extension to the end of 2013. This is a transitional arrangement put in place by the Welsh Assembly Government to bridge the gap between the old and new agri-environment schemes, by continuing the annual management payments for four years.

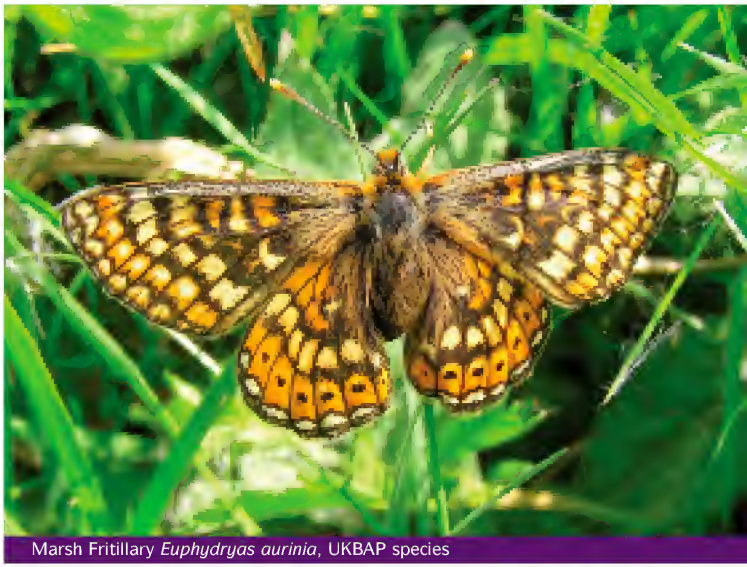
Farm biodiversity

A stock market investor might reasonably want to know the financial return on an investment after a suitable period of time. Likewise, after more than a decade of investment of public money, and our own significant contribution in time and savings, what has our farm delivered in terms of biodiversity?

The grasslands – including the crown jewels, the west-facing semi-natural pastures – have benefited from carefully managed cattle-grazing. These slopes now produce a rich tapestry of colour through the summer with abundant Hawkweeds, Bird's-foot-trefoil and Common Knapweed supporting large numbers of

Olive Earthtongue, *Microglossum olivaceum* UKBAP species, one of the grassland specialists

Entoloma rubellum, very rare grassland species



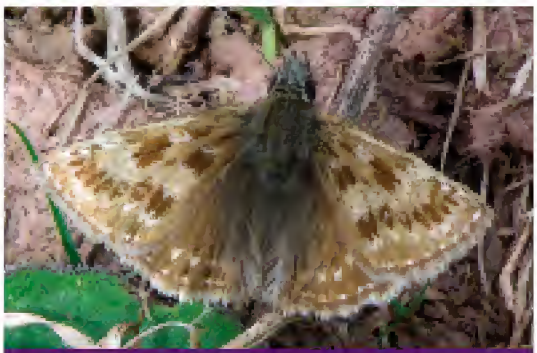
Marsh Fritillary *Euphydryas aurinia*, UKBAP species

insects including the UKBAP priority species Shrill Carder Bee. Our County BSBI recorder recorded 21 grass species in just one of the fields in June 2007.

Further down the slopes towards damper ground, Devil's-bit Scabious thrives and expands its range each season. This area now provides suitable conditions for the Marsh Fritillary butterfly, an attractive and threatened UKBAP species which first appeared on the farm in 2005 and has reappeared every year since. Our annual recording as part of the national butterfly monitoring scheme regularly finds uncommon species associated with grasslands including Dingy Skipper and Brown Argus along with prodigious numbers of more widely recorded species.

Perhaps the most notable feature, and the one that fascinates me most, is the assemblage of grassland fungi – collectively known as 'waxcap-grassland fungi'. This group is named after the highly coloured and attractive waxcaps, which share their preference for nutrient-poor, semi-natural grasslands with club and coral fungi, pinkgills and earthtongues.

Although serious recording effort began just seven years ago, the site list for this group of fungi has now reached 78 species including eight on the UK's provisional red data list, of which three are UKBAP



Dingy Skipper *Erynnis tages*, UKBAP species

priority species. Each year something new or interesting turns up on the farm: in 2010, the highlight was *Entoloma rubellum* – a striking but very rare pinkgill never before recorded in Britain.

The grasslands provide ideal nesting opportunities for skylark, with numbers often boosted in May and June when displaced pairs from neighbouring silage fields seek out new territories as the first crops are cut. In late summer and autumn, our meadows attract seed-eaters in good numbers, especially goldfinches and linnets searching out the Knapweed heads.

We believe the Tir Gofal scheme has played a major part in helping us achieve our goal of enhancing and maintaining the biodiversity interest of the farm.

Shrill Carder Bee *Bombus sylvarum*, UKBAP priority species feeding on Common Knapweed

Sadly the programme apparently incorporated scant provision for biological recording or monitoring, so limiting the opportunities for identifying and celebrating any success. Was an opportunity missed to highlight some of the conservation benefits undoubtedly achieved as a result of the scheme? Or were there too many concerns that, in the broadest sense, the programme would represent poor value of money?

The future - Glastir?

But what of the future? The site, which is not protected by any statutory designation, is vulnerable through its dependency on agri-environment funding support. The future, beyond Tir Gofal, remains uncertain.

Tir Gofal has undoubtedly been a major factor in ensuring effective management of the habitat at Somerton and delivering the consequential conservation benefits. The downside, from an economic perspective, is that soil fertility has reduced - perhaps by half. A simple measure based on the number of small bales harvested from a 2 hectare field shows production dropping from typically 400 to 200 over a 10 year period. Inevitably the farm now supports fewer livestock with a consequent impact on income (though of course the farm overheads continue to increase annually).

The new agri-environment package, Glastir, operates at two levels. The All Wales Element (AWE) was designed, unsuccessfully as it turned out, to encourage the widest level of participation from the farming community. In practice, its broad brush approach seems to deliver little for biodiversity and in any case received an underwhelming reception from potential participants during the first round of applications in 2010. Post-2013, this would be a straightforward option for us to comply with (far less demanding than Tir Gofal) - but financially offering nothing like the level of support needed to maintain our existing farming regime which has been so successful in delivering a real gain in biodiversity.

Of more interest to us is the Targeted Element (TE) which we hope will offer something at least comparable with the level of Tir Gofal support. In fact, the prospect is uncertain.

The TE scheme scores applicants against a series of five target areas: carbon management, water management, biodiversity, historic environment/ landscape and access. However, the guidance states: "*...The basis of the target scoring process may change in future years to reflect changing policy priorities*". In practice this provides a moving target, depending on the political 'flavour of the month', with no way for prospective participants to know in advance if they will be eligible for acceptance into the scheme. Already there are indications that scores in the early years will be weighted in favour of certain geographic areas and programmes which deliver against improved carbon storage and water management objectives: or, to put it another way, will be biased against biodiversity. It is also worth noting that entry to the scheme is by invitation rather than formal application (other than ticking a box to express an interest on the annual Single Payment Scheme form).

This potential lack of continuity – falling off a well-established and effective scheme into a black hole of uncertainty regarding substantive agri-environment support – provides no basis for future planning. Will farms such as ours continue to survive? Many owners may have no option but to fertilize the pastures and increase stocking levels, or change direction and plant trees or keep horses. Some may opt to allow more commercially minded farmers to take over the land: what hope then for semi-natural

grasslands when the over-riding objective is increased productivity?

You don't get a second chance to save nutrient-poor semi-natural grassland: when it's gone, it's gone. The creation of a new wild flower meadow may attract plenty of media attention – and certainly has a role to play – but can be no substitute for saving existing semi-natural grasslands which have a well-developed and complex soil biodiversity, richer by orders of magnitude, particularly at the microbial scale[1].

Challenging times lie ahead. The rising world population, and concerns about food security, have increased pressure for a move towards a so-called 'sustainable intensification' of agriculture in the UK[2,3]. This must surely pose a threat to the conservation of our most biodiversity-rich grasslands.

It seems that many of our politicians are reluctant to recognise the substantial public investment and private commitment already made to reach the current position – and thus the continuing support and encouragement needed to at least maintain the benefits arising from that investment. Perhaps a visit to our meadows in summer and autumn, full of life and colour, would bring home to politicians what one

agri-environment scheme has meant in practice, and what, thanks to the new scheme, may be lost.

***David Harries** is the County fungus recorder for Pembrokeshire. David and Holly are actively involved in local recording schemes for bats, butterflies and birds.*

References

1. *European Atlas of Soil Biodiversity.* European Commission - Joint Research Centre (2010).
2. The Grasslands Trust (www.grasslands-trust.org)
3. *Looking Back, Looking Forward - Sustainability and UK Food Policy 2000-2011.* Sustainable Development Commission (2011)

Cyfoeth bregus fferm Somerton

Ers y 1980au bu perchnogion fferm 20 hectar Somerton, ger Penfro, yn ceisio hybu bywyd gwyllt. Plannu coed ac agor pwll oedd y prosiectau cyntaf, ond ers 15 mlynedd maen nhw wedi bod yn ffermio'r tir gyda nifer gynyddol o wartheg Dexter sy'n pori allan drwy'r flwyddyn. Gwerthir y cig yn lleol i nifer o gwsmeriaid. Bu'r taliad sengl yn gyfraniad gwerthfawr i incwm y fferm ac fe helpodd Tir Gofal dalu am gatiau, ffensys a chafnau dŵr a digolledu lefelau stocio isel. Nid gwneud arian oedd y nod ond mae'n ddiddorol edrych ar yr hyn a gyflawnwyd o ganlyniad i'r buddsoddiad o amser ac arian. Mae'r glaswelltiroedd yn gyfoethocach – cofnodwyd 21 rhywogaeth mewn un cae yn 2007 ac mae yma lu o drychfilod, yn cynnwys rhai prin fel brithig y gors. Mae'r ffyngau capiau cwyr yn rhyfeddol – cofnodwyd 78 rhywogaeth yn cynnwys 8 sydd ar restr data coch y DU. Gwelir rhywbeth newydd neu ddiddorol bob blwyddyn.

Ond ansicr yw'r dyfodol. Nid yw'r safle wedi ei ddynodi ac felly mae'n ddibynnol ar gynlluniau amaeth-amgylcheddol. Ni all lefel sylfaenol Glastir gynnal y drefn bresenol o ffermio sydd wedi annog y fath fywyd gwyllt ac mae'n ymddangos y bydd y meini prawf ar gyfer lefel uwch Glastir (sydd ar gael ond drwy wahoddiad) yn newid yn gyson ac yn gosod mwy o fri ar garbon a dŵr na bywyd gwyllt. Un cyfle sydd i warchod hen diroedd fel hyn – nid oes modd eu hail-greu. Mae gwir angen i wleidyddion sylweddoli bod rhaid rhoi digon o gefnogaeth i warchod yr hyn sydd gennym, a'r hyn sydd wedi ei gyflawni drwy reolaeth ofalus dan gynlluniau blaenorol.

Inspired by Nature Competition Winner

John Harold

Fire-fighting

In my bag, a newspaper, a bottle of water - thirsty work. In the press-stud pocket of my overalls, three cigarette lighters, all nearly empty; I don't smoke these days. And a box of Swan Vestas, just in case.

I've been here before, nearly ten years ago, as an onlooker then. This is different, today, no bystander this time, but the agent, with the responsibility of power, of decision, of action. And yet it's hard to forget what happened then, the images are insistent, still charged with horror.

Across the valley lies the twin sister, another gently mounded hill. I look in her direction, my eyes assaulted by the scars, once-soft flanks freshly charred dark, barren, clothes reduced to rags, warm brown heather scraps, insufficient cover for the now-cold black skin.

I've seen this before, the flame tide, an unstoppable dark force, put to man's use but never really a servant. I'm going to set fire to the hill.

I wasn't here in '76, but that must have been a big one. And the old timers remember '58, maybe the biggest in living memory, they say the hill smoked for weeks after that one. But I remember 2003 vividly, towering flames, the terrifying majestic sweep of fire so ferocious it creates its own driving wind. Smouldering away for days afterwards, the peaty skim of soil first crisped, then embers, finally ash.

It's the details that stay with you. A lizard on the path, perfect in every jewel-tile of its skin mosaic, exquisite micro-articulated limbs. But also dead, overcome by the broiling heat as it tried to flee, too late sensing that its refuge was the opposite, a lethal trap in the path of the advancing firestorm.

There's a kind of sad beauty in a small creature freshly, immaculately, dead. Much more troubling are the survivors, the torment of bewildered displacement. In my mind's eye they are as pathetic today as they were then, in mid-April 2003. I see the meadow pipits and skylarks in particular, hopping around in futile circles, trying to orientate themselves by features which no longer exist. Each seemed to know where their nest had been, marking the place with despondent calls and fluttering.

The morning the fire started, April 17th 2003, I was emptying a moth trap on the edge of the hill. My list is in front of me now;-
Hebrew Character 20
Red Chestnut 28
Double-striped Pug 1
Early Grey 1
Purple Thorn 1
Glaucous Shears 9
Brindled Pug 1
Powdered Quaker 1
Common Quaker 2
Mottled Grey 1

Below the list I'd added later a note in my illegible scrawl 'The last moth list from here for some time, as the last of the hill goes up in flames'. I didn't see the fire until later, but it was arson, of course, the third of three fires started over a period of a month; a searingly dry spring combined with a resentful response to the extension of the Eryri SSSI to cover these gateway hills.

Even then, after a once-in-three-decades conflagration, some few small fragments of heath survived. Some survived because they were near to houses and gardens, the focus of what is valued and worth saving, a priority for intervention. Others survived because the wind changed at a critical point and well-trodden paths intervened as serendipitous firebreaks. These islands of continuity seemed strange, almost unreal in their familiarity, representing 30 years of succession. And over the whole hillside that process had gone back to the beginning again.

So for eight years now I've been watching the unfolding story of heathland regeneration, the latest iteration of a cycle that has gone on for millennia. It was a bad burn because it was far too big, and because the ground was too dry, became part of the fuel. But the first shoots of bilberry sprang bright pale green from rootstocks underground. Seedlings of western gorse too, and grassier swards of fescues and hair-grasses, a scattering of sheep's sorrel and heath bedstraw. More slowly but steadily the ling and bell heathers appeared and over the years have begun to dominate again as bilberry and western gorse grow out of that initial burst of vigour.

By 2005 I had found the money to put new fencing in place on the hill, so the first livestock went back on the mountain – Carneddau ponies. By then swathes of western gorse had closed over on the lower slopes, excluding livestock and allowing sapling birch and arching brambles to establish. Summer sheep of the spring-legged hill breed joined the year-round ponies on the hafod. And the hill's warm brown fleece of heather regrew, and the stonechats returned, the skylarks flourished, the grouse continued their strange, secret, ritual lifestyle. And all the rich life of the heathland seems to have flourished, spring Emperor moths and summer bees. The enigmatic little rare moth called Weaver's Wave can be seen again basking on the quartz-rich rocks, and the starry saxifrage and bog asphodel flower in the mossy runnels.

And all this time the heath has been thickening up, heather building in swathes. And my job is to take care of it, to ease the way for diversity and continuity. So I've been cutting swathes and trails through the heather and particularly through the gorse, helping the livestock to spread out their grazing and creating firebreaks. And every year the heather and gorse get taller and thicker and every spring someone sets light to a corner somewhere. This heathland is well used, on the doorsteps of the villages, it is very accessible, vulnerable. And I feel that vulnerability, to the uncontrollable actions of persons unknown, to the patterns of drought, to the combination of the two.

And that's why I am here with my cigarette lighter, fighting fire with fire. Using fire as an insurance against fire. What burns today cannot burn tomorrow, a good fire over damp ground sees the heather regenerating strongly within months. It still turns my stomach a little, but this is the best I can do for the hill.

John Harold

James Robertson

The first ten years...

Greater Butterfly Orchids at Winllan

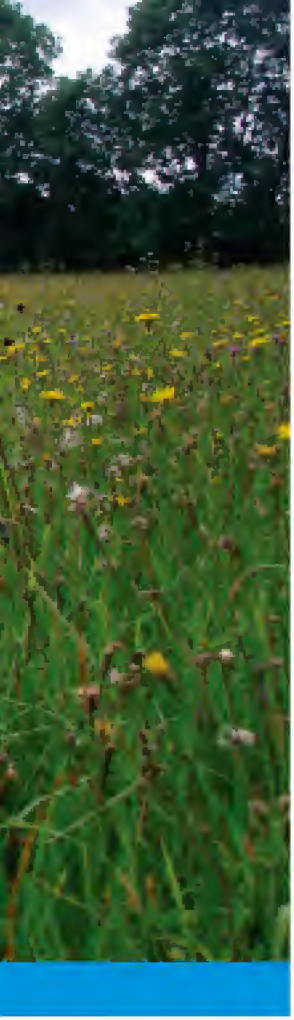
Natur Cymru – Nature of Wales *magazine was launched in June 2001. To mark the milestone of its first ten years, Editor* JAMES ROBERTSON *reflects on a decade at the helm.*

James Robertson

Green-winged Orchids at Pentwyn Farm

In May this year I found myself in the Wye Valley, listening to George Peterken's wry observations on Lady Park Wood National Nature Reserve (NNR). Meticulous monitoring over half a century had thrown up all sorts of unscripted thoughts – how natural is 'non-intervention', why has it caused half the ground flora to disappear, how can a chance weather event completely change the composition of the woodland, how can young saplings stay looking like saplings, as if in suspended animation, for decades? Science wants answers, hypotheses which can be tested; this ecological study was raising a quizzical eyebrow at the demand for certainty, predictability.

The next step on the tour was a visit to the Trellech plateau, and a wonderful set of meadows full of Green-winged Orchids at Pentwyn Farm. Four years ago the meadows' owners, the Gwent Wildlife Trust, set about raising the money to buy the dairy farm next door, in order to convert its 100 acres into a landscape of wood-pasture, a matrix of woodland, trees and shrubs mixed with meadows and grassland. For



once, the term 'visionary' fits the bill. It will take decades to realise, but what a fantastic ambition!

I travelled back from one end of Wales to the other, mostly using the A470, and marvelling all the while at the quality of the landscape I was travelling through. It brought washes of different feelings: freedom, escape, belonging, awe and joy; but also gloom, as when I passed the insensitive 'road improvements' in Powys, which will probably, unnoticed, damage the economic as well as environmental health of this beautiful tract of small rounded hills and valleys, whisking tourists away and blighting the experience of those who would stay.

For the record

For ten years now it has been my business to track down and record the passion which people feel about their environment, the efforts they are making to secure nature's future here, their studies into habitats and species and the issues which comprise the contemporary environmental agenda in Wales. It has been a source of immense pleasure and reward. It has given me a greatly increased awareness of the environment and what is going on in it; and it has introduced me to some fabulous people. It is hard for me these days to differentiate between places and the people who look after them; they are equal partners in the story of nature in Wales.

I had never before visited those Green-winged Orchid meadows at Pentwyn Farm, or seen the newly acquired farmland, but these places were

Issue 27, Summer 2008

Detail from *The Botanist: Dr David Stevens at Tan-y-Bwlch* by **Peter Winstanley**, commissioned by CCW as a book cover. Peter comments "This painting is a memorial to my dear friend David Stevens. As a full-time painter living on Anglesey my work revolves around imaginative narrative, rural life, landscape and the figure and can be viewed at my studio or on line at **www.royalfineart.co.uk**."

familiar. They were the subject of *Once and Future Common*, an article in the summer 2008 magazine (No 27), a favourite of mine for the meadow articles and the wonderful cover.

Trellech plateau itself had been introduced to me, as I had reviewed Ray Armstrong's book *Time to Stare*, an intimate look at twenty square kilometres of farmland and forest around Trellech. Many of the places I passed through on my journey home had become familiar through articles and visits. Julian Jones had written about that dreadful road scheme (*Road to Nowhere?* No 37), as well as contributing to an article about meadow restoration at Gilfach NNR (*The Making of a Meadow*, No 26), which I passed just north of Rhaeadr.

Slightly off my route is an incomparable wildlife garden and meadow. Over thirty years, Ian Callan and his wife brought their land back to life. I received a letter from him one day in 2003, which led to an article

(*Creating a wildlife garden at Winllan*, No 6) and then a visit, spurred by our mutual interest in meadows. His meadow was stunning, and has at last become an SSSI, the finest site for orchids in Ceredigion. These days the Callans struggle to keep the brambles at bay, but their energy has brought great benefit to wildlife.

As well as providing a record of the changing fortunes of our environment, this magazine has kept an eye on other environmental recorders. This has allowed me to obtain a shelf full of books to review and given me the motivation to read them. George Peterken's masterful *Wye Valley* in Collins' New Naturalist series is among the seventy or so books I have reviewed. George has also contributed articles to both 'woodland' special editions of the magazine (Nos 3 & 29).

Independence

Readers of this magazine will, I hope, come to know this wonderful country in a fuller way through these pages. The magazine exists to serve its readers, and my job is to put your interests first; many authors address a small gallery of colleagues or funders when they set out their stalls, and find it hard to step back from the 'day job' to think about what matters and what excites them about their study or project. The tighter the strings that tie an author to an organisation, the weaker may be the will to let the imagination off the leash.

Searching out subjects which will interest readers, and authors who will bring those subjects to life on the page, has proved much easier than I anticipated, for two reasons. There is more going on, there are more people involved with the natural environment in more ways than I ever imagined; and people are incredibly willing to tell their stories, and ready to take advice about how best to do this. The guidance notes for authors explain that the purpose of the magazine is not only to provide authoritative, up-to-date information about wildlife and land management; it is also to make the connections between these environmental stories and the wider social and environmental agenda, presenting them in an interesting and readable way.

Most articles which appear in the magazine have been commissioned by me, and I have drawn on the results of two reader surveys, the first in 2002 and the second last year. Both found that readers were generally happy about the balance of the magazine, and they have provided pointers to the most and least popular subjects. Nearly a fifth of you last year thought that a letters page would be a good idea, and I have included one page of those (see No 37), but still struggle to find sufficient letters to publish. This is a hint!

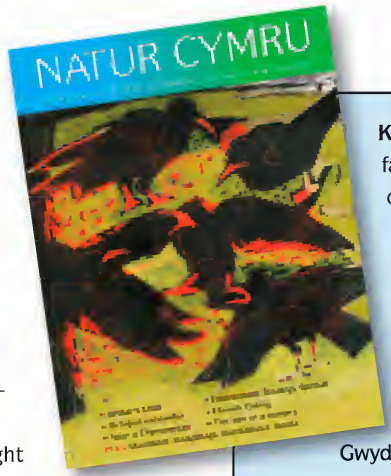
In recent years articles have started arriving out of the blue or, better still, after initial contact with an author who has something to say. This has given me the desirable problem of a surfeit of riches, and sometimes articles have to wait for some months before a slot becomes available. I take this as a measure of success: more people know about the magazine, and want to be published in it. They recognise that *Natur Cymru* is a magazine of quality, with a strong identity, which champions the natural environment not in isolation, but within a broad socio-economic and political context. Most importantly, it has got better over the years. Here's how.

Colour changes

We launched in summer 2001, and No 1 sold out long ago. I look at it with mixed feelings. The articles

CCW Chair John Lloyd Jones and First Minister Rhodri Morgan at the launch of *Natur Cymru* in 2001

still impress me: an account of Jack Grasse's dormouse work, Graham Oliver's authoritative but sobering analysis of the plight of the freshwater pearl mussel, the removal of rats from Puffin Island and so on. The 'wrap around' photograph was worth trying, adding a distinctive note. But the weaknesses shout at me: postage-stamp photos, pictures without captions or photo-credits, only eight pages of colour, blank spaces and a slightly unfinished look.



Kim Atkinson's painting of an excited family of choughs formed the cover of No 15, and initiated our unbroken run of original art covers, and she has contributed three further covers (Nos 17, 20 & 28). Kim was brought up on Ynys Enlli (Bardsey) when her parents were farming there; later she returned to live on Enlli with her husband Gwydion. They now live in Uwchmynydd at the tip of Pen Llŷn.

That first edition had been produced in a rush, and improvements, such as captions and photo-credits, followed. (We still manage to miss the odd photo-credit, though – apologies to Allan Brandon for not crediting him for his stunning southern damselfly in No 38). The centre pages were used to display Paul Kay's wonderful underwater photography, for example, and Michael Hammett's amazing micro-moths and river flies. In the first five years the colour content increased, first to 12 pages and then to 16, and in summer 2005 the magazine adopted colour throughout.

That magazine is special for me because of one thing – the cover. Geoff Gibbs had encouraged me to see an exhibition of Kim Atkinson's paintings in Bangor museum, and I loved her painting of chough. As I had a wonderful article about 'Arthur's Crow' planned for the summer, it was the perfect subject. Kim made a painting of chough available, and the results were dramatic. I have written about this painting, and 'the art of nature', in *Planet* magazine[1], describing it as 'essence of chough'. It was a cracking way to start a new phase of full colour *Natur Cymru*.

Art on the cover

Art on the cover has now become a distinctive part of the magazine's look, differentiating it from other wildlife magazines. It provides a showcase for Welsh artistic talent which draws on nature for inspiration. See the centre pages for some of the artists whose work has been used.

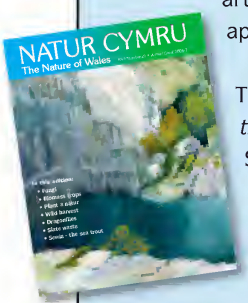
A journal of record

The magazine has been shaped by many things – designers, finances, contributors, organisational supporters, reader surveys and so on. I will mention a few individuals. David Parker has chaired the 'Board', first when it was a loose partnership, and then as a Limited Company, for the whole of its ten years. He has believed in the magazine as a champion for biodiversity, and a means of supporting others in the broader 'biodiversity partnership'. Early on he wanted me to find a source of binders, so that subscribers could easily collect together and keep the magazine as an enduring record of the Welsh environmental scene. Our binders are now an important element of the magazine, and have been much sought after. David always looks for a strong 'natural history' component to the magazine, which has been a good discipline for me.

In the early days Morgan Parry brought hugely important WWF Cymru support, and as a Board member he kept the wider environmental agenda in my sights. WWF continues to support us through its £500 prize money for the winner of the 'Inspired by Nature' writing competition (see *Fire-fighting*, p.18). Geoff Gibbs, Vice Chair, has been a tireless activist and a good friend. Spreading the word about the magazine, increasing the range of the things we do and our ability to 'blog', 'tweet' and make films for YouTube is down to the boundless energy and enthusiasm of Huw Jenkins. I will stop there, but there are many others I would like to mention.

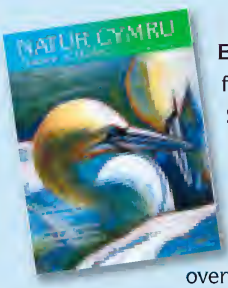
Art on the cover...

Art has featured on the cover of 25 magazines, starting with No 15. Here is a selection of the artists whose work has been used. A full list of artists, many with contact details, appears on the inside back cover.



The cover for No 21 is *Blue pond in the old quarry* by **Prudence Aitken**. She recalls "The quarry is above the Horseshoe Pass between Llangollen and Llandegla and the 'blue' was copper sulphate (so we were told as teenage school kids in the 1930s in Wallasey). At half term we used to cycle out to Queensferry and across into Wales – there was always plenty to explore!"

Julie Horner's painting *Butterflies on hogweed* featured on the cover of No 26. Julie paints close-up studies of all kinds but specialises in butterflies in their natural surroundings. She tries to capture those fleeting moments when the light is just right, and prefers working in watercolour. She lives and works in Cheshire, with access to the beautiful countryside of Wales on her doorstep.



Emma Bowler's painting *Gannets* featured on the cover of No 35. She is now Emma Stansfield since marrying the Warden of Bardsey Island Bird Observatory, Steve Stansfield. Their joint website (which she says is due for an overhaul in 2011 – keep an eye on it!) features photographs by Steve as well as Emma's paintings.

Chris Chalk's *Barn Owl* appeared on No 37. Chris is a professional artist living in Pembrokeshire. Painting in oils, his main passion is the beautiful Welsh landscape. Growing up on a dairy farm in West Wales, Chris is never happier than when at home working in his studio or spending time out in the Welsh countryside sketching and painting.

Alastair Robertson has provided two previous covers, Nos 18 & 19, as well as this anniversary cover, *Ten terns*, with one tern for each year. Alastair has provided drawings for every edition of the magazine, including the odd cartoon!

Natur Cymru'n dathlu'r ddegawd gyntaf

Gobeithio bod darllenwyr Natur Cymru, dros ddegawd, wedi dod i 'nabod ein gwlad yn well. Bu'n syndod o hawdd i ddarganfod straeon diddorol; mae mwy yn digwydd o hyd a phobl yn ymwneud â'r amgylchedd naturiol mewn pob math o ffyrdd. Mae pobl hefyd yn barod iawn i rannu straeon a chyfranwyr hefyd, yn gynyddol, yn cynnig erthyglau'n ddigymell. Bu sylwadau darllenwyr yn help i lywio datblygiad y cylchgrawn ac yn ddi-os mae wedi gwella dros 10 mlynedd o ran diwyg, dyluniad a chynnwys. Mae'r cloriau lliw hefyd yn helpu hybu gwaith artistiaid Cymreig ac yn creu delwedd hollol unigryw i'r cylchgrawn.

Bu nifer yn cyfrannu mewn gwahanol ffyrdd, o gadeirio cyfarfodydd i gynnig arian gwobr, golygu a hyrwyddo. Tybed beth fydd dyfodol y cylchgrawn – a fydd cyhoeddiadau papur yn dal i fodoli ymhen 20 mlynedd? Nod Natur Cymru yw rhannu gwybodaeth gyfredol ac awdurdodol a hefyd creu'r cysylltiadau rhwng y straeon amgylcheddol a'r cyd-destun cymdeithasol ac amgylcheddol ehangach.

Tra' mod i wrth y llyw carwn weld y cylchgrawn yn parhau i gofnodi'r hyn sydd o'n cwmpas – gan mai erthyglau am rywogaethau yw'r mwyaf poblogaidd gyda darllenwyr – ond hefyd yn cofnodi ein hymatebion amrywiol a dirifedi i'r byd naturiol.

The future

Nature in Wales lasted over 30 years, and its demise in 1986 left a gap which *Natur Cymru* has sought to fill – albeit in a much evolved form. I hope that this magazine will still exist in another twenty years, but it will face many uncertainties along the way. Will magazines continue to be published in hard form, or will they all be obtained electronically?

A group of supporters is gathering in July to consider the next ten years. If you have views about how the magazine should evolve, please let me know. I might even publish your suggestions!

After ten years, I ought to think about giving someone else a chance to do this lovely job. Assuming that I stay as your Editor, however, I had better come clean about where my sympathies lie, and how I would like to alter the mix in the coming years.

At the end of my journey from Gwent to Anglesey, I had an event to go to, the Kyffin Williams memorial lecture, given this year by Jan Morris. Her lecture was a *tour de force*, exuding warmth, humour, rich with experience and a love of language – every word pitch perfect. It was uniquely Welsh yet universal, and it drew the audience into a kind of conversation. These are all things to aim for.

Gigrin Red Kite Centre

Red kites at Gigrin

The magazine is on a journey, and it will continue to record what is here, whether red kites at Gigrin and ospreys at Glaslyn, or other less glamorous or obvious wildlife: for species are the most popular subjects with readers. It will also, I hope, record how we respond to nature, which is a great stimulus to human sensibilities, to reason and to emotion. There are myriad ways of writing about and making connections with nature through science, art, archaeology, history, poetry and politics. The biosphere's the limit, in more senses than one.

***James Robertson** edits* Natur Cymru – Nature of Wales.

Reference

Robertson, J. 2006. 'The Art of Nature'. *Planet – The Welsh Internationalist*, Issue 178 pp80-85.

60ain Mlwyddiant Parc Cenedlaethol Eryri

Mae penblwydd yn adeg dda i fwrw trem yn ôl, ac i edrych ymlaen hefyd. ***TWM ELIAS*** *sy'n crynhoi hanes y Parciau Cenedlaethol ac yn cloriannu rôl a chyfraniad Parc Cenedlaethol Eryri. Mae'r heriau sy'n wynebu'r Parc wedi newid gryn dipyn dros y 60 mlynedd diwethaf ac mae'r angen i fod yn flaengar ym maes datblygiad cynaliadwy yn gofyn am weledigaeth a dulliau gweithredu newydd sy'n cyfannu'r amgylchedd a chymunedau o fewn ffiniau'r Parc.*

Trwy garedigwydd APCE

Roedd tirfeddianwyr yn poeni am y nifer o gerddwyr yn y Parc
Landowners were concerned about the increase of walkers in the Park

Cafodd Parc Cenedlaethol Eryri, sy'n dathlu ei benblwydd yn 60 oed eleni, effaith nid ansylweddol ar dirlun y fro hyd yn oed cyn iddo ddod i fodolaeth. Yn niwedd y 1940au roedd cynlluniau gan yr Awdurdod Trydan Cenedlaethol i sefydlu nifer o gronfeydd dŵr enfawr yn rhai o gymoedd Eryri: yn Nant Ffrancon, Nant Gwynant, Cwm Croesor, Crafnant, a Chwm Penamnen. Byddai'r trydan a gynhyrchwyd yn cyflenwi'r Grid Cenedlaethol newydd fyddai'n dod â thrydan i bawb (bron) yn y blynyddoedd i ddod tra byddai'r cronfeydd hefyd yn hybu'r diwydiant twristiaeth drwy ddarparu cyfleoedd ardderchog i hwylio a physgota.

Yn wir, dyna fyddai wedi digwydd oni bai i'r Aelod Seneddol dros Arfon, Megan Lloyd George, godi'r mater yn y Senedd a dadlau nad oedd strategaeth o'r fath yn gwneud synnwyr mewn ardal a fyddai yn barc cenedlaethol o fewn blwyddyn. O ganlyniad gollyngwyd y cynlluniau cynhyrchu trydan yn Eryri a dim ond un aeth yn ei flaen, sef Cwm Rheidol, oedd y tu allan i ffiniau'r parc.

Roedd sefydlu parciau cenedlaethol yng Nghymru a Lloegr yn arbrawf cyffrous iawn ar y pryd ac yn dilyn traddodiad hir o sefydlu parciau mewn rhannau eraill o'r byd: Yellowstone yn UDA yn 1872 oedd y cyntaf a chyfres o 9 o barciau yn Sweden yn 1909 oedd y cyntaf yn Ewrop. Ond roedd parciau cenedlaethol gwledydd Prydain yn wahanol am eu bod mewn ardaloedd amaethyddol gyda chymunedau hyfyw a hir sefydledig yn byw a gweithio ynddynt. Sicrhau mynediad i gerddwyr, addysgu'r cyhoedd am gefn gwlad a rheoli datblygiad drwy'r broses gynllunio

Trwy garedigwydd APCE

Carafannio cynnar • Early caravans

oedd y blaenoriaethau yma tra yn y gwledydd eraill roedd y pwyslais ar ddiogelu amgylchedd naturiol oedd, i raddau helaeth, yn rhydd o ddylanwad dyn.

O'r 10 parc cenedlaethol a sefydlwyd yn y 1950au dan ofal Comisiwn y Parciau Cenedlaethol, dau yn unig a reolwyd gan fyrddau annibynnol (Ardal y Llynnoedd a'r Peak) tra rheolwyd y gweddill, yn cynnwys Eryri, drwy bwerau roddwyd i'r hen gynghorau sir (Caernarfon, Meirionnydd a Dinbych). Nid oedd hyn yn gwneud llawer i hyrwyddo cysondeb yn yr ymateb i wahanol broblemau drwy'r parc ac nid oedd diffyg cyllid a staff canolog yn gwneud llawer i helpu chwaith.

Croeso cymysg

Yn y blynyddoedd cynnar croeso cymysg gafodd parciau cenedlaethol yn lleol. Roedd y dynodiad yn ffafriol iawn o ran denu cerddwyr a thwristiaid, oedd yn iawn i'r rhai a fedrai elwa o hynny ond gallasai achosi trafferthion mawr i amaethwyr ar adegau. Adlewyrchir rhai o'r ofnau yn sylw Goronwy Roberts, yr Aelod Seneddol a olynodd Megan Lloyd George, mai sefydlu math o 'warchodfa i indiaid cochion' oedd y bwriad.

I leihau'r gwrthdaro ymgyrchodd Comisiwn y Parciau Cenedlaethol i addysgu'r cyhoedd i barchu cefn gwlad – cadw at lwybrau, cau giatiau a pheidio ag amharu ar gnydau, anifeiliaid fferm na bywyd gwyllt. Cyhoeddodd gyfresi o hysbysebion eitha gwreiddiol i'r perwyl hwn ac aeth ati, ar y cyd ag asiantaethau eraill dros y blynyddoedd i hyrwyddo y Côd Cefn Gwlad – ymgyrch sydd wedi parhau hyd heddiw, er ar ei newydd wedd.

Yn y blynyddoedd cyntaf aeth Parc Cenedlaethol Eryri ati i ddarparu cyfleusterau i ymwelwyr, megis meysydd parcio i liniaru problemau mewn lleoedd poblogaidd; sefydlu canolfannau gwybodaeth (y gyntaf yn Llanrwst yn 1958 a'r ail yn Nolgellau yn 1959) a chefnogi cynlluniau amrywiol oedd yn gwella ansawdd yr amgylchedd. Ond roedd rhai datblygiadau oedd y tu allan i'w reolaeth, megis gwaith plannu y Comisiwn Coedwigaeth, sefydlu gorsaf niwclear yn Nhrawsfynydd (pasiwyd Deddf i'r perwyl yn 1957) a boddi Cwm Tryweryn i gyflenwi dŵr i Lerpwl (pasiwyd y Ddeddf honno yn 1957 hefyd). Yn yr achosion hyn cynnig sylwadau ynglŷn â thirlunio oedd unig gyfraniad y parc.

Y gwasanaeth wardeiniaid a gofal am y cyhoedd

Wrth i fwy a mwy o bobl ddod i berchnogi ceir bu cynnydd cyson a sylweddol yn niferoedd y cerddwyr a ddeuai i Eryri. Ymateb i hynny oedd apwyntio dau Warden llawn amser yn 1961, un gan Gyngor Sir Feirionnydd yn y de a'r llall gan Gyngor Sir Gaernarfon yn y gogledd. I oresgyn prinder adnoddau, rhyngddynt, daethant yn gyfrifol am dros 180 o wardeiniaid tymhorol gwirfoddol i'w cynorthwyo i gadw golwg ar lwybrau, cynghori cerddwyr am ddiogelwch ar y mynydd a delio â phroblemau amrywiol.

Y Comisiwn Cefn Gwlad, 1968

Cymerwyd cam ymlaen yn 1968 pan olynwyd Comisiwn y Parciau Cenedlaethol gan y Comisiwn Cefn Gwlad. Roedd y corff newydd yn gryfach, gydag arian ar gyfer cyflogi staff newydd i ysgwyddo'r gwaith ac i hyrwyddo cynlluniau blaengar fel oedd eisoes yn batrwm yn y parciau oedd â byrddau annibynnol yn eu rheoli.

Un cynllun o'r fath oedd Arbrawf Rheolaeth yr Ucheldir. Cynllun tair blynedd (1969 - 72) oedd hwn a'i fwriad oedd edrych yn fanwl ar broblemau mynediad i gefn gwlad mewn dwy ardal, un yn Ardal y Llynnoedd a'r llall yn y Rhinogydd yn Eryri. Gwella llwybrau a'r tirlun oedd y flaenoriaeth yn Ardal y Llynnoedd tra yn y Rhinogydd edrychwyd ar ddiffygion yn y rhwydwaith llwybrau ei hun. Yn yr ardal hon roedd y llwybrau'n addas at ddibenion lleol efallai, megis i gysylltu rhwng ffermydd, ond roeddent yn anaddas at ofynion cerddwyr. Roedd y rhain eisiau dilyn y cribau ac, o ganlyniad, yn croesi a difrodi cloddiau.

Trwy garedigwydd Fferm a Thyddyn

Drwy ennill cydweithrediad rhai ffermwyr a sefydlu llwybrau goddefol, gosod camfeydd, arwyddbyst a meysydd parcio bychain, llwyddwyd i wella'r sefyllfa gan osod cynsail i weithredu tebyg ar raddfa ehangach dros y blynyddoedd i ddod. Bu'r arbrawf hwn, ynghyd â'i olynydd (Rhan 2 o'r un cynllun, 1975 - 78) yn allweddol i adeiladu pontydd rhwng y gymuned amaethyddol a'r parc.

Cyngor Gwynedd

Gwelwyd newidiadau pwysig yn sgîl ad-drefnu llywodraeth leol a sefydlu Cyngor Gwynedd yn 1974. Un pwyllgor canolog oedd wrth y llyw bellach ac am fod y parc yn disgyn yn daclus o fewn ffiniau'r Gwynedd newydd roedd gwneud penderfyniadau, denu nawdd ar gyfer cynlluniau newydd a chreu gweledigaeth unol yn llawer haws.

Bu polisi iaith Cyngor Gwynedd yn gaffaeliad mawr, oherwydd, drwy sicrhau bod mwyafrif llethol y staff yn siarad yr un iaith (yn ffigyrol yn ogystal â llythrennol) â'r gymuned a drigai o fewn ei ffiniau, datblygodd y berthynas rhwng y parc a'r cyhoedd dros y blynyddoedd i fod yn un o'r goreuon ymhlith yr holl barciau.

Plas Tan y Bwlch

Prynwyd Plas Tan y Bwlch gyda chymorth y Comisiwn Cefn Gwlad yn 1969 ac fe'i agorwyd fel Canolfan Astudio Parc Cenedlaethol Eryri, dan ofal Cyngor Gwynedd, yn 1975. Ers hynny bu'r Plas yn fwrlwm o weithgareddau, yn cynnal ystod eang o gyrsiau preswyl i'r cyhoedd, i ysgolion ac, ers 1992, yn darparu cyrsiau hyfforddiant i staff cefn gwlad o bob cwr o ynysoedd Prydain. Pwrpas y cyrsiau proffesiynol, a noddir gan Gyngor Cefn Gwlad Cymru, yw gwella sgiliau a dealltwriaeth gweithwyr ar bob lefel yn y sector amgylcheddol fel y gallant weithio yn fwy effeithiol dros yr amgylchedd.

O'r cychwyn, bu'r Plas yn weithgar iawn yn hybu ymwybyddiaeth a gwerthfawrogiad o dreftadaeth amrywiol a chyfoethog Eryri ymysg pobl o bob oed, a hynny ymhell cyn i werth y dreftadaeth ddiwylliannol gael ei chydnabod gan gyrff amgylcheddol.

Y parc yn Awdurdod annibynnol

Yn 1996, yn dilyn Deddf Llywodraeth Leol 1995, daeth Parc Cenedlaethol Eryri yn Awdurdod annibynnol ac, yn unol â Deddf yr Amgylchedd 1995, mabwysiadodd bwrpas cyntaf newydd: *"Gwarchod a gwella harddwch naturiol, bywyd gwyllt a threftadaeth ddiwylliannol yr ardal"*. Mabwysiadwyd hefyd ddyletswydd i feithrin lles economaidd a chymdeithasol cymunedau yn y parc.

Ymateb yr Awdurdod newydd oedd cofleidio yn egnïol y cyfleoedd ddaeth gerbron. Aeth ati i sefydlu nifer o gynlluniau arloesol, yn aml mewn partneriaeth â chyrff eraill i ddenu arian ac i rannu adnoddau dynol ac arbenigedd. Rhai o'r cynlluniau mwyaf oedd: Partneriaeth Llwybrau'r Ucheldir (1998); Fforwm Bywyd Gwyllt Eryri, a olygodd mai Eryri oedd yr Awdurdod Lleol cyntaf yng Nghymru i gynhyrchu Cynllun Gweithredu Bioamrywiaeth (1999); partneriaeth â Chyngor Cefn Gwlad Cymru i weithredu'r Cynllun Tir Gofal yn yr ardal (1999); a Rhaglen Tir Eryri i wella tirlun, mynediad a bywyd gwyllt ar ffermydd (2003). Ar ben hyn sefydlwyd nifer fawr o gynlluniau cymunedol a fforymau lleol i hyrwyddo mynediad a dehongli; bioamrywiaeth a gwarchodaeth bensaernïol.

Ond efallai mai ym maes cynaladwyedd cymunedol a threftadaeth ddiwylliannol y digwyddodd y gwaith mwyaf arloesol. Bu Cronfa Arbrofol Eryri (CAE), fu'n rhoi grantiau i amrywiaeth mawr o gynlluniau cymunedol ers 2000 ac a brofodd yn hynod o boblogaidd ac effeithiol, ynghyd â chynllun Bwrlwm Eryri, a sefydlwyd fel fforwm dreftadaeth ddiwylliannol yn 2005, yn dipyn o gymorth yn y cyfeiriad hwn.

Bellach mae Awdurdod Parc Cenedlaethol Eryri wedi claddu yr hen ddelwedd anffafriol a fodolai yn nyddiau cynnar y parc ac yn edrych ymlaen i arbrofi a datblygu cynlluniau a chyfundrefnau fydd yn hyrwyddo buddiannau'r gymuned yn ogystal â'r amgylchedd ac yn esiampl i gyrff eraill i'w ddilyn ar hyd a lled y wlad.

Cyfarfod protest yn Nant Gwynant 1950, yn erbyn cais y Bwrdd Trydan i foddi'r cwm.
Protest meeting against the flooding of Nant Gwynant

*Mae **Twm Elias** yn ddarlithydd a threfnydd cyrsiau ym Mhlas Tan y Bwlch, Canolfan Astudio Parc Cenedlaethol Eryri.*

Cyfeiriadau

1. Adroddiadau Blynyddol y *Snowdonia Park Joint Advisory Committee* (1953 – 73); Parc Cenedlaethol Eryri (1975 - 95); Awdurdod Parc Cenedlaethol Eryri (1996 - 2010).
2. Edwards, G. a Ablitt, J. (2001). *Llyfryn Dathlu Pen-blwydd y Parc Cenedlaethol yn 50 oed.*
3. Elias, Twm (2008). *Y Dreftadaeth Anweladwy. Natur Cymru* 29.
4. Llŷr, Dylan a Elias, Twm (2009). *Y Parciau Cenedlaethol – gwarchod y dreftadaeth anweladwy.* Y Naturiaethwr 25.

Snowdonia National Park's 60th Anniversary

Snowdonia National Park, which celebrates its 60th anniversary this year, had a profound influence on the landscape even before its arrival; the imminent designation, back in the late 1940s, saved this part of north-west Wales from the threat of huge hydropower resevoirs in some of our most dramatic and cherished valleys such as Nant Ffrancon. The early years of the Park were characterised by tensions between walkers, tourists and farmers and by the challenge of having to coordinate management between three local authorities, with scant resources and without dedicated staff.

The advent of the Countryside Commission in the late 1960s heralded a new phase in the Park's history – additional funding led to an increase in staff numbers and allowed new experimental approaches to be trialled. The establishment of an independent National Park Authority in 1996, along with the adoption of a new primary purpose to 'safeguard and enhance natural beauty, wildlife and cultural heritage of the area', gave added impetus to the enormous task of responding to the challenge of achieving exemplary sustainable development in this part of Wales.

©Entomart.ins

Beetle bling:
warriors of chaos

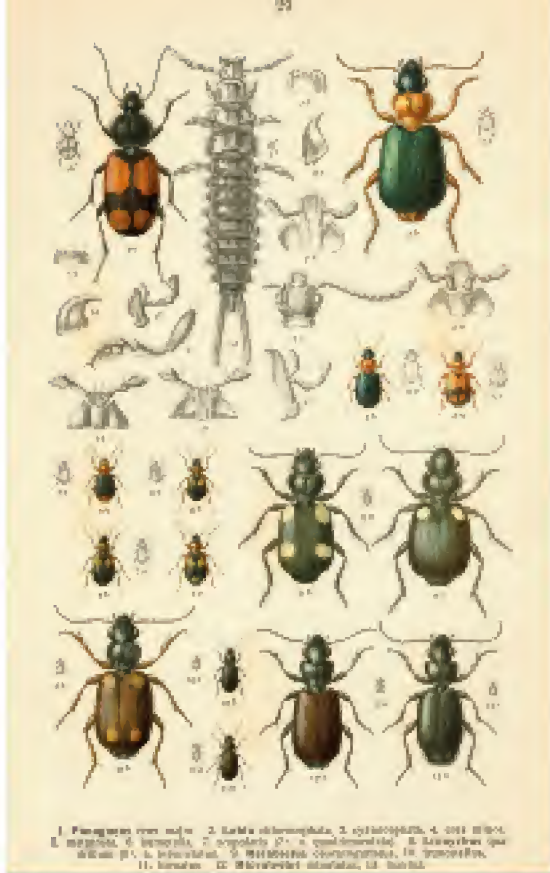
Bembidion quadrimaculatum

***PAUL SINNADURAI** was a runner-up in last year's 'Inspired by Nature' competition. Here is his 'highly commended' account of his study of a fascinating group of carabid beetles.*

Fauna Germanica

Dating back to the time of the dinosaurs, beetles are the most numerous, widespread, enduring, adaptable and diverse animals of all, accounting for about one quarter of all living things with over 350,000 known species recorded so far. They're nature's ultimate survivors. They don't taste too good though! Ever got one caught in your throat? I have, several times; disgusting, like rotten lemons. They're very smelly too.

So why do I like them so much? Well, I'm undertaking a PhD on their ecology on the exposed shingle and sand bars of the River Usk. I find myself talking to the beetles when out surveying, idle chit-chat mainly: "Hello my beetles, how are you today? Weather's not too good for you is it, a bit on the cool side." Under the microscope they are incredibly beautiful: well-designed for running fast with long legs, slender, symmetrical bodies, and shining, warrior-like armour-plating, minutely sculptured, striped and punctured, finely hairy and iridescent, "beetle bling" with subtle flaws here and there, such as slightly uneven-patterned



No. 8 *Lyonichus quadrillum*

wing cases, non-symmetrical punctures and errant stripes and markings.

Their known endurance and survivability might teach us something about coping with climate change. On the shingle and sand bars where they live, they experience super fast changes every year owing to the harsh, catastrophic and chaotic environment there. Exposed river sediments fluctuate between dry, barren and exposed or else inundated by rapidly rising river levels within short timeframes each year and within seasons. Food is hard to come by, especially if you're as small as these critters: most are less than 10mm long, some no more than three to four millimetres. Their small size and high surface to volume ratio makes them vulnerable to desiccation, heat and cold stress, and starvation, and requires behavioural changes to adapt. The literature says that carrion, flotsam and jetsam and larvae emerging from the water are their main food sources. If the river level is low for a long period, food becomes scarce. When the river level rises rapidly, there's equally nothing to eat and it's "best beat it, river's-a-comin'". The good times are when the high river level subsides, leaving aquatic death and carnage behind for the returning beetles to feed on.

So what does this tell us about animals coping with climate change? These beetles include habitat specialists and more widespread generalists. It's evident that their life histories, whose similarities are *variations on a theme of Carabini* (sorry, couldn't resist that one), possess various strategies for responding to sudden environmental stresses. If we can observe and understand these, we might be able to use the beetles as templates for observing the adaptability of other animals, including intrinsic but hidden adaptability in response to climate change. I haven't got any answers yet but I might investigate whether the specialist beetles of this harsh, rapidly changing environment are really that specialised or whether they possess the same adaptability as the more widespread species, thriving here because it gives them some other advantages, for example breeding success, predator avoidance or some such.

The beetles are prized animals too, having once enjoyed their own grouped Biodiversity Action Plan covering three carabid beetles (*Perileptus areolatus*, *Bembidion testaceum* and *Lionychus quadrillum*), one hydrophilid beetle (*Hydrochus nitidicollis*) and two staphylinids (*Thinobius newberyi* and *Meotica anglica*). Unfortunately I haven't yet found any of these species on the stretch of the River Usk that I'm focussing on. I've found several of the usual species known to occur in this habitat, chiefly in the genus *Bembidion* and I amuse myself by renaming them as cars, such as the *Bembidion cortina* (a classic and much loved species), *Bembidion escort* (dull but surprisingly nippy), *Bembidion capri* (flashy but underpowered), *Bembidion granada* (big but sluggish), *Bembidion fiesta* (small, efficient and ugly), *Bembidion mondeo* (everywhere, fed up with them), *Bembidion focus* (surprisingly ubiquitous and

The Royal Natural History 1879

Great Black Water Beetle

efficient) and *Bembidion ka* (looks stupid but packs quite a punch for its small size).

I'm somewhat bemused that I find myself studying this family of animals or indeed insects at all: I'm no entomologist, far from it. I could have chosen to study ring ouzels or sand martins or little ringed plovers. They keep me company, which is a joy and a frustration in equal measure because they're fun to watch but look easier to study; you just sit there in a hide with a clip board, a flask and a box of sandwiches and a telescope. Well, that's all ornithological students do, isn't it? However, being a part-time PhD student, I needed a relatively easy and reliable research topic. I live in Brecon so the River Usk is very close and there are plenty of exposed sediments too; where there are sediments, there are beetles.

Being outside surveying obviously has its benefits: a fabulous river within a beautiful historic landscape with pied, grey and yellow wagtails, dippers, common and green sandpipers, kingfishers, teal, mergansers, mallards, plovers, martins, warblers, herons, swans, hobby, kites, buzzards, dragon-flies, damselflies, salmon and otter for company. Oh, and curious cows, and of course I'm extremely grateful to the farmers who allow me to park on their yards and walk their fields to and from the different sites, and to CCW for consents and licences.

Maybe I was always destined to work with beetles. The word Carabidae derives from the Greek word Karabos, meaning beetle. So perhaps I've found my mêtier; Carabosse is the witch in the "Sleeping Beauty", the first ballet I ever saw in London, which led me into my first career as a ballet dancer, where I met my wife, who persuaded me to go for this job and move to Wales; and here I am twenty years after I stopped dancing, staring at little carabosses down a microscope!

Paul Sinnadurai *is a part-time PhD student with the Cardiff School of Biosciences.*

Cyfrinachau'r Chwilod

Drwy astudio chwilod ar lannau hardd yr afon Wysg, gyda dyfrgwn, gwesynnod a chorhwyaid yn gwmni, gobeithir dysgu mwy am allu anifeiliaid i ymdopi gyda newid yn yr hinsawdd. A oes creaduriaid harddach na chwilod? Rhwng cymesuredd y cyrff, y coesau hir a main, yr arfwisgoedd sgleiniog gyda'u mân batrymau, y cloriau adenydd lliwgar a'r marciau a'r streipiau amrywiol maen nhw'n ddigon o ryfeddod.

Maen nhw hefyd yn giamstars ar oroesi. Oherwydd eu maint bychan ac arwynebedd sylweddol eu cyrff mae oerfel, gwres a sychder yn effeithio'n fawr arnyn nhw. Mae goroesi yn golygu addasu, o ran ffisioleg ac ymddygiad. Mae gro afon yn gynefin anodd iddynt; un funud mae'n sych a hysb, a'r funud nesaf mae o dan ddŵr. Dim ond pan fydd y llif yn gostwng, gan adael cyflafan a chyrff ar y lan y mae digon o fwyd iddynt. Beth yw eu cyfrinach? Ydyn nhw wedi arbenigo i fyw yn y cynefin hwn neu a oes ganddyn nhw ryw strategaeth gynhenid ddirgel sy'n eu galluogi i oroesi yma oherwydd ei bod yn fanteisiol iddyn nhw wneud hynny?

Inspired by Nature Competition Winner

Frances Voelcker

Graig Goch

The first third

Beyond the stream across the sphagnum bog, where sundews catch unwary flies, as we would be caught if we followed the cotton-grass banners and broke the crust, we go up to the spring line. Here the slate-lined channel each year fills with rushes that resist our tugs with sucking sounds, releasing peat with its scent of rust, of blood, into the flow. On up to the six-sided shafts, bleached and bare, the darker glassy core-like flints. Stacked as walls, erected as palisades, dragged down in winter frosts across the bog for gatepost and lintel, these stones ring like gongs, and shear awry.

On up, through gorse and grass and ling, the sheep paths bind and thread their way to the wall that bands the lower third. There are no gates or stiles or creeps. We scale the wall and jump down into -

The second third

- Another country, springy with bilberry, the tiny fragrant crop picked one by one like beads, so slow to fill the hand or make a mouthful. Here we lie in heather with only the sounds of wind and a buzzard, mewing as she surfs the aerial tide.

Then up again. The peak, that looked so near from home, recedes and rises: now we must cross a granite bowl of peat that shrinks and cracks in summer, and can't sustain the mosses of the lower bog though it's a mire in winter. We toil up the long shoulder hidden deceptively from below, seen only from afar.

The third third

At last we reach the crags that name the mountain, tumbled shards of weathered rock, abraded as glass fragments on a beach, but lacking pebbles, lacking sand. In crevices out of the wind, ten thousand years accrue sparse crumbs of earth, where heather struggles. As we clamber we dislodge wind-blasted sun-scorched rocks that clink and clatter, sparking essence of volcano as we reach the shattered summits.

The losses

There were trout in the stream when we came, basking under the banks, flashing away at footfall or shadow, hand-size, one with draught so deep it grounded on the grit between the stepping stones.

The heron came to hunt the little pools.

Now, only tiny minnows, small as larvae, flit and dart.

For years, the curlew filled the springtime air with promises of summer, its song at once lament and rippling joy. In courting pairs, there would be four and more circling and calling so that we would lift our heads from digging and draw breath and blessing from the rising song. Then lapwings came to share this wedge of moor, and flashed and wheeled and drove the curlew out. Two years of lapwing – and then they too were gone.

Each year we gather blackberries in the lane. Our neighbour told me that the best fruit grew on the boundary bank between the fields that separate our garden from the lane. This bank is bare now, just a fence and nothing but one aged and failing thorn. The flocks are not shut out to grow the winter's hay, so blackberry shoots are nipped before they bud.

The bullace age and split, lost one by one: the last full crop was 1984...

Timescales

Half a million years ago the mountain smoked, heaved up, and out burst lava, cooled to shafts of sixside glass, the edges hardly blunted yet. Two millennia ago, our predecessors set them up in dwellings where now there are no trees, thin earth. Five hundred years ago, they brought them down across the bog for steps and lintels. Thirty years ago, we did the same, and climbed up to play upon them, aeroplane rock, control tower. Who knows what games they played?

The last of the glaciers slid round the crags towards the south, and brought to us our boulders, cobbles, sand and clay – the elephant rock, the anchor at the bottom of our field, our yard, the struggle of our garden. Frugal living but not poor, witnessed in the little barn, the little house, the great oak structure.

Was this high watershed, this shoulder of a pass, the borderland between two tribes, the circle huts at Caerau the quarters of the Border Guard? We witnessed on the train from Zahedan to Quetta several such, spartan lives around a well, with fowl and goats, smallholder soldiers. And then, collapse, a thousand years, the population gone.

The later legends tell of the great battle fought out here. Some say Cwmbran's burnt mound is sweat lodge, others, funeral pyre. Who knows, in the valley of the carrion crow?

A little time passes (eight hundred years). A barn is built, a house. (Four hundred years to grow its oaks.) Where are the oak trees now?

Nant Cyll, Nant Call, flows on.

What it means

We live here where we work; work where we live. We see the land worn down as we are worn. We ask too much of it, and of ourselves. Perhaps we should not hope for more. But people have lived here for a long time: this place has memory. There are the dams and catchpools, and the derelict mill; the fallen cottages, choked springs, closed paths. The first school, at Tai Duon, lies forgotten and unremarked by all but a few.

This is Cynefin for people too.

Statisticians now agree that Mynydd Graig Goch is a mountain. To us, it always was. This is our landscape, our lodestone. It shapes our light, it forms our weather. It is a great breast on which we lean, drawing strength from it, as we draw its water. It is where our children were born. It is home.

Frances Voelcker

Graig Goch	Red Crag
Caerau	Castles, strongholds
Cwmbran	Valley of the Carrion Crow or Raven
Nant Cyll	Hazel Stream; Nant Call (alternative name for the same stream) Wise Stream
Cynefin	Habitat

Horses and community woodland - *a Welsh example*

All photos: BBCW

Horse logger John Bunce

Managing a woodland near a new town has its challenges, one being how to extract timber in difficult conditions. The answer involved a traditional technique, some large animals, low environmental impact and a means of bringing the community together, as ***DAVID WILLIAMS*** *explains.*

It sounded like an ideal combination – using horses in woodland – but was it practicable and appropriate? This was the mix of thoughts when our community woodland group considered using horse loggers to thin an area of neglected larch wood.

Blaen Bran Community woodland, or Coed Gwaun y Fferiad to give its Welsh name, lies to the northwest of Wales's only new town, Cwmbran, and is an area of 100 acres/40 hectares around a disused reservoir which used to supply water to the communities that made up Cwmbran. The area was planted by the Forestry Commission between 1937 and 1939, as they had a long term lease from what was then the Llantarnam and Llanfrechfa Water Board. Post-war there was rotational thinning, planting and felling, firstly by the Forestry Commission and then by a

succession of private owners who took over the lease from them. The last of these sought to have more community involvement with the woodland. Its close proximity to Cwmbran, now a town of 45,000 people, meant that it had become both a playground and a dumping area. Off-road motorbikes regularly rode through the woodland and deliberate fires were a seasonal feature.

The community group

The community woodland group was born through two convergent threads. Children at Woodlands primary school, the closest to the wood, had occasional nature trips there under the direction of the deputy head. They noted some of the mess and damage, and wrote to Cwmbran Community Council to ask if they could do something about it. At around the same time the forestry agent for the then leaseholder also approached the Community Council and gave a talk on the wood and its history, seeking support to get more community involvement.

From this the Community Council initiated a community meeting at the local scout hut in Upper Cwmbran, inviting groups such as scouts, local resident associations, choirs, local teachers and the wider public. Around 50 people came along, and ten volunteers stepped forward to look at creating a trust group to become friends of the woodland. The group included the teacher from Woodlands school; the son of the leaseholder; his forest agent; the local scout's commissioner; some local residents; and two of the local Cwmbran Community councillors.

From that starting point the initial trust evolved to being a Company Limited by Guarantee, to apply for and obtain funding from the Forestry Commission Wales Cydcoed programme, and then took the opportunity to purchase the leasehold in December 2004 – with some 930 years of the 999 year lease remaining. Subsequently the group has gone on to register as a charity, and has a membership of around 90 with 12 directors.

Horses and logging

The Blaen Bran woodland is on an area that had been historically used for small-scale coal mining – it lies along the eastern outcrop of the South Wales coalfield. Ground is undulating, with a rise to the northwest from around 700 metres to about 900 metres. The upper part of the woodland – around 35 acres of the total – had been planted with larch in the 1970s. This had never been thinned, leaving this part of the woodland relatively dark and inaccessible, although there was an old track through the middle and old tithe maps of the 1840s showed that the area had been arable farmland, with remains of boundary walls and part of a stone farmhouse visible in places.

This un-thinned larch wood was not easy to get to – whilst the main forestry track was in reasonable condition, the actual entrance track to the woodland was not. It lay over local authority land and, being on a fairly pronounced slope, had been eroded and not repaired over the last 20 to 25 years. The community woodland group got some grant funding to thin a first section of the larch, but the small area that could be funded, allied to the poor access and the sloping ground, meant that contractor interest to take on the work was limited. It was then that consideration was given to using horses and the group looked around for potential horse loggers. Contact was made with the British Horse Loggers (www.britishhorseloggers.org) and two contractors and their horse teams were available at the time we wanted. They were Frankie Woodgate and her two Ardennes from Kent, and John Bunce with his two Clydesdales from Gloucestershire.

Blaen Bran

The loggers and horses stayed on site in a temporary paddock created on some marshy ground alongside the Bran brook (which gives its name to Cwmbran) and adjacent to the larch area. The aims were to thin one row in three up to the central track and bring trees down to the trackside for potential sale and collection. We also spoke to the loggers about holding a demonstration session on a Saturday late morning and early afternoon, so that visitors could see how horses worked with their handlers. We let our members know and spread information by word of mouth as well as putting up posters in some of the local pubs and at the entrances to the wood. Around 60 people came along and really enjoyed seeing the horses at work and what they could do. One of the audience, a member of a local male voice choir, recalled how he used to work with horses in the woodlands as a youth, and it brought back good memories.

Certainly using horses on the sloping terrain worked effectively, and there was much less impact on the ground than would have been the case with mechanical equipment, although we could have planned better to fell lines more quickly to make best use of the loggers' time and expertise.

Members of the community group got to know John and Frankie, the loggers, very well and there were quite a few campfire and pub discussions in the evenings.

The larch wood brought out was of fairly poor quality, but we used some to create a stockade behind one of our vulnerable boundary fences that was cut by off-road bikers bringing their bikes in the woodland. Larch log sections were placed behind the fence and stakes at intervals behind helped keep logs in place. Sections of wire secured logs together so that an individual section could not be lifted out. Locally we refer to this as 'the Alamo' and it has worked well.

Further thinning work continued to be needed, and

Demonstration session

we were fortunate to be in contact with a local horse logging team in Monmouth: Kate Mobbs-Morgan and her horses will take forward some more work with some Environment Wales grant funding.

Due to popular interest we had another open session on a Saturday afternoon in October 2010 and took the opportunity to sell refreshments for some fundraising. Around 50 people came along – and we gained a few new members as well as raising £85 on refreshment sales. Those interested had the chance to try leading and guiding a horse in bringing a log along the track – a single horse was easily able to cope with a felled 50 year old larch. It was a very successful and engaging opportunity – people clearly like to see traditional methods being used and it has helped develop that sense of being part of the community which is important for a group like ours.

Overall it has been a good opportunity to bring traditional methods of one aspect of forest management to a wider audience; to have a good job done with low impact on the environment; to support traditional small business; and to learn from the experience as well.
A new town and old traditions – a positive way forward!

***David Williams** is the Chair of Blaen Bran Community Woodland (BBCW) just outside Cwmbran in SE Wales. He has been involved with the community woodland since its inception. More information can be found on BBCW at: www.blaenbran.org.uk and on Llais y Goedwig at: www.llaisygoedwig.org.uk*

The 'Alamo'

Ceffylau, Coedwig, Cymuned

Mae Coed Gwaun-y-ffeiriad, gerllaw Cwmbrân, wedi bod dan ofal y gymuned leol ers 2004, pryd y sefydlwyd Cwmni Cyfynedig drwy warant, a gofrestrwyd wedyn fel elusen. Pryderon lleol ynghylch cyflwr y goedwig a dyhead deiliad y goedwig i estyn allan at y gymuned oedd wrth wraidd hyn. Roedd y goedwig wedi ei phlannu ar dir anwastad, a fu unwaith yn dir âr, yn rhan ddwyreiniol maes glo de Cymru. Roedd angen mawr i deneuo'r goedwig dywyll ond roedd mynediad yn anodd. Dim ond un ateb oedd, sef defnyddio ceffylau i lusgo pren o'r safle.

Mae pobl leol wedi mwynhau gweld y ceffylau'n cael eu gweithio, ac mae diwrnodau agored wedi cynnig cyfle iddynt dywys y ceffylau eu hunain, ac wedi bod yn fodd i godi arian at gynnal y goedwig. Defnyddiwyd peth o'r llarwydd i greu terfynau fyddai'n cadw beicwyr draw ac yn helpu gwarchod y safle. Mae'r profiad wedi dangos bod dod â hen draddodiadau a chymunedau tref newydd at ei gilydd wedi helpu pontio mewn sawl ffordd.

Nature at large

Pine martens in Wales

The Vincent Wildlife Trust (VWT) rewards participants in its regular surveys with a free copy of any of its publications. So I requested *Evidence of Pine Martens in England and Wales 1996 – 2007*[1] expecting to read an account of the animal's sad decline towards extinction, but I found a very different story.

This detailed and very readable report presents a fascinating analysis of pine marten evidence gathered across England and Wales from 1996 to 2007, based mainly on sightings reported by naturalists, land managers and members of the public.

Scoring each of the 824 reports (296 of them from Wales) on a '1 to 10' quality / reliability scale and evaluating the data in various ways, the authors conclude that wild pine martens are still present in those parts of northern England and Wales where they were recorded in earlier decades. A 'Kernel' analysis identified two concentrations in Wales (centred on Snowdonia and Carmarthenshire) and three in northern England (Lake District, Northumbria and the North York Moors).

For Wales as a whole, pine marten records over the 12-year study period were received for all 13 vice counties (VCs). Applying a pine marten occupancy index – reflecting both the abundance and persistence of records – Birks and Messenger were able to rank the highest VCs as 'primary', 'secondary', 'tertiary' or 'occasional' in terms of pine marten presence. As might be expected from the 'Kernel' analysis, Carmarthen and Merioneth emerge as 'primary' VCs. Encouragingly, however, there is clear geographical linkage between these two primary VCs and most of the other higher-ranking VCs in Wales.

The report presents an in-depth analysis on the relationship of pine marten sightings to altitude, habitat and timing over the 12-month and 24-hour cycle. In doing so, the discussion takes into account any bias in terms of human activity and populations as well as the differential visibility of pine martens in different habitats.Pine martens, it says, are adapted to live in structurally complex habitats such as woodland, where they favour 'old growth' features with a high proportion of standing deadwood and elevated tree cavities for denning and breeding. However, as the authors point out, ancient trees with cavities suitable for pine martens are very scarce or absent from most British woodlands.

The VWT has designed and successfully field tested a pine marten den box, maximizing insulation and minimizing convection heat losses whilst allowing for some air flow. Using a clever 2-entrance design, the den box achieves a chamber size matching that of the black woodpecker, whose nest holes are the main naturally occurring den sites for martens in mainland Europe.

Den box construction and installation is a promising option. As for inspecting an established den box, disturbing pine martens and their dens requires a licence, but the convenient pine marten habit of scatting on the box lid enables simple visual checking from a distance. Having outlined the pine marten's semi-nomadic nature, social organization and breeding, and the limited information available on DNA studies, the report concludes optimistically on the prospects for pine martens in England and Wales.

The long-term persistence of pine martens at low population densities, and in sub-optimal habitat, indicates a remarkable tenacity that offers hope for the future. Indeed, the authors caution against the temptation to reintroduce or restock, advising that assisted natural recovery is the appropriate option for nurturing these precious relict populations.

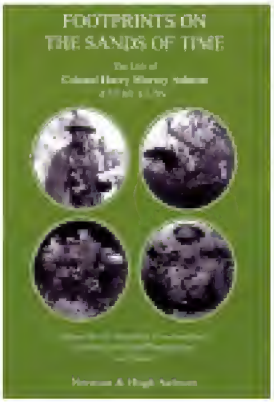
It was a revelation to discover that pine martens were not after all extinct in Wales – but it seems they need a little help. With a more open mind on the chances of seeing a Welsh pine marten, I will not be quite so ready to dismiss a dark brown, flat, furry item on the tarmac as an unfortunate small dog or dark fox. Mind you, I would much prefer to see the live version!

Bob Dennison

References

1. Birks, Johnny & Messenger, John (2010). *Evidence of pine martens in England and Wales 1996-2007. Analysis of reported sightings and foundations for the future.* Vincent Wildlife Trust.

Green **Bookshelf**



Footprints on the Sands of Time
Norman & Hugh Salmon. Published by the authors 2011, 166 pages, 77 illustrations including colour £10.50 + £2.00 p&p from the authors*

Sub-titled *The Life of Colonel Harry Morrey Salmon CBE, MC, DL, DSc*, his two sons place on record the achievements in many fields of their remarkable father. Born in 1891 he spent his childhood in Whitchurch, Cardiff and by the time he was twelve was commencing his first bird diary and exploring the nearby countryside. Captivated by photography, his first photograph was a dipper's nest in 1908 followed the next year by a lapwing. His skill with the camera was such that he gave his first lecture, titled *Local Bird Life*, to the Cardiff Naturalists' Society in 1913.

Returning from the First World War having been awarded the Military Cross and been Mentioned in Despatches, he devoted all his leisure time to ornithology and photography, usually with his friend and co-author Geoffrey Ingram. Their *Birds of Glamorgan* was published in 1925. Over the years to 1966, sometimes with an additional co-author, seven similar county avifaunas were published stretching across South Wales from Pembrokeshire to Radnorshire. They also collaborated on *Birds in Britain Today* published in 1934, which contains 65 of their photographs.

Not surprisingly Morrey Salmon had been lured west to the Pembrokeshire islands and in 1924, with Clemence Acland, carried out a survey using photographs of the gannet colony on Grassholm, the number of nests then being some 2,000. Amazingly they had on the day of their visit spent eleven and a half hours in the boat and rowed for nine hours.

Morrey Salmon became a close friend of Ronald Lockley, then resident on Skokholm, and the Salmon family stayed on the island every year until the outbreak of war in 1939. Morrey Salmon helped build the first Heligoland trap on the island, and became the first person to photograph Manx Shearwaters at night by magnesium flash. It was his contacts, one the First Lord of the Admiralty, which enabled those attending the International Ornithological Congress in Oxford in 1934 to visit the Pembrokeshire islands on two Royal Navy destroyers.

He resumed with vigour his ornithological and photographic activities after distinguished service, for which he was awarded the CBE, in the Second World War. The plight of the Red Kite, then only a handful of pairs, had long taken his attention and he brought together a wealth of information, later described as a masterly work of scholarship, and in 1971 received the Gold Medal of the RSPB. In 1982 the National Museum of Wales held an anniversary exhibition – 75 Years of Ornithology in Wales – a tribute to the work of Morrey Salmon, the Museum's Honorary Treasurer since 1963.

In 1983, on the 50th anniversary of the establishment of the Observatory on Skokholm, he returned for the last time to the island, very appropriately with Ronald Lockley with whom he had shared so much. Two years later, having reached his 94th year he died at home in Cardiff. 'Welsh ornithologist of the century', and 'Father of British bird photography' were two very appropriate descriptions of a really great man, well remembered in this biography.

David Saunders

*Cheques made payable to Post Office Savings A/C Norman Salmon should be sent with your contact details to Norman Salmon, Ashcott Villa, Ashcott, Somerset, TA7 9PE. Also available at www.gwales.com

Maint Cymru

Mae'r byd yn hynod gyfoethog o ran bywyd gwyllt, er bod pwysau o du pobl yn cael effaith bob dydd ar y cyfoeth hwn. Yn aml, *caiff darn o dir yr un maint â Chymru* ei ddefnyddio i fesur y raddfa y caiff coedwigoedd eu dinistrio. Mewn ymdrech i droi'r defnydd negyddol yma o faint ein gwlad ar ei ben, cafodd *Maint Cymru* ei ffurfio.

Cynllun cenedlaethol unigryw yw *Maint Cymru* sydd â'r nod o gynnal a chadw darn o goedwig drofannol yr un maint â Chymru fel rhan o'n hymateb cenedlaethol i newid hinsawdd. Caiff cefnogwyr *Maint Cymru* eu cysylltu â chymunedau a phrosiectau coedwigoedd o'u dewis, gyda'r nod o reoli adnoddau'r coedwigoedd yn gynaliadwy a chyfrannu'n sylweddol at leihau allyriadau carbon y byd.

Ymrwymodd RSPB Cymru i her *Maint Cymru* trwy gynnig cefnogaeth barhaus i Raglen Coedwig Gola yn Sierra Leone, Affrica.

Mae Coedwig Gola yn fan pwysig iawn o ran bioamrywiaeth ac mae dan fygythiad o du torri coed a mwyngloddio. Yn 1990, cydweithiodd yr RSPB â Chymdeithas Gadwraeth Sierra Leone (CSSL) ac Adran Goedwigaeth Llywodraeth Sierra Leone i greu Rhaglen Coedwig Gola, gyda'r nod o warchod a diogelu hyd at 75,000 hectar o goedwigoedd glaw yn Gola.

Trwy gyflogi mwy na 100 o staff yn Sierra Leone, mae'r prosiect wedi dod â manteision economaidd,

amgylcheddol a chymdeithasol i'r cymunedau lleol. Mae staff lleol a chadwraethwyr yn hollbwysig yn y dasg o warchod mwy na 300 o wahanol fathau o adar, yn cynnwys 18 o rywogaethau prin a than fygythiad.

Trwy ddefnyddio rhwydwaith o gamerâu digidol yma ac acw drwy'r goedwig, mae'r rhaglen wedi darganfod nifer o bethau cyffrous. Mae'r camerâu wedi tynnu lluniau cor bigmi, llewpard, bongo, antelop prin ac iâr-gini fronwen i enwi dim ond rhai. Mae eleni yn flwyddyn arbennig iawn i Raglen Coedwig Gola, o gofio bod y safle o'r diwedd wedi cael statws Parc Cenedlaethol ers diwedd mis Chwefror. Erbyn hyn, Gola yw ail Barc Cenedlaethol Sierra Leone.

Wrth edrych tua'r dyfodol, gyda Birdlife International a phartneriaid yn Sierra Leone a Liberia, mae'r RSPB ar fin dechrau ar brosiect trawsffiniol rhwng Sierra Leone a Liberia i greu parc heddwch rhwng y ddwy wlad – rhywfaint dros 200,000 hectar o faint. Bwriad yr RSPB yw parhau â Rhaglen Coedwig Gola. Y gobaith yw y bydd ei ddynodiad fel Parc Cenedlaethol yn helpu i newid y ddirnadaeth sydd gan bobl o Sierra Leone – sef ei fod yn lle gwych i ymweld ag ef ac i fuddsoddi ynddo unwaith eto.

Ond mae'r gymdeithas yn ymwybodol iawn o'r sialensiau sydd o'i blaen: mae'r pwysau i fwyngloddio'r tir a hela yn enghreifftiau o fygythiadau gwirioneddol a phresennol. Rhywbeth sy'n gorwedd ymhell yn y dyfodol yw denu twristiaid i'r Parc Cenedlaethol; ond eto i gyd, ymwelodd 100 o bobl ag ef y llynedd – 100 yn fwy nag a ymwelodd ag ef y flwyddyn cynt. Ymhellach, caiff dwy o deithiau adar rhyngwladol eu cynnal yno bob blwyddyn, a'r gobaith yw y gall yr arfer hon dyfu a thyfu.

Gan fod dinistrio coedwigoedd glaw yn gyfrifol am chwarter allyriadau carbon y byd (mwy na'r holl deithio sy'n digwydd drwy'r byd gyda'i gilydd) a chan fod colli coedwigoedd trofannol hefyd yn bygwth cynefinoedd mwy na 50% o rywogaethau'r byd, rŵan yw'r amser i drigolion Cymru gymryd camau dros natur.

Cymru fydd y wlad gyntaf yn y byd i ymateb mewn modd cenedlaethol i ddatgoedwigo a newid hinsawdd. Bydd yr RSPB yn parhau i weithio'n rhyngwladol er mwyn gwarchod cyfoeth byd natur, er lles pob un ohonom heddiw ac er budd y cenedlaethau sydd i ddod.

Lara Hallett *Swyddog Cyfathrebu RSPB Cymru, www.rspb.org.uk www.sizeofwales.org.uk*

Wales and the world

The Size of Wales

The world is extraordinarily rich in wildlife, although human pressures are daily eroding that richness. *An area the size of Wales* is frequently used to measure the rate of forest destruction. In the bid to turn the negative use of the country's size on its head, *Size of Wales* was formed.

Size of Wales is a unique national scheme to sustain an area of tropical forest the size of Wales as part of our national response to climate change. Supporters of *Size of Wales* are directly linked to forest projects and communities of their choice, with the aim of assisting sustainable management of forest resources and to make a significant contribution to reducing global carbon emissions.

RSPB Cymru signed up to the *Size of Wales* challenge through continued support of the Gola Forest Programme in Sierra Leone, Africa.

The Gola Forest is a 'biodiversity hotspot' under threat from logging and mining. In 1990, the RSPB teamed up with the Conservation Society of Sierra Leone (CSSL) and Forestry Division of the Government of Sierra Leone to form the Gola Forest Programme, with the aim of protecting and preserving up to 75,000 hectares of rainforest in Gola.

Through engagement and employment of over 100 Sierra Leonean staff, the project has delivered economic, environmental and social benefits to the local communities. Local staff and conservationists play a vital role in

the protection of over 300 species of birds, including 18 rare and threatened species.

The programme has made some exciting discoveries of these threatened animals through a network of digital camera traps throughout the forest. These cameras have snapped the pygmy hippo, leopard, bongo, rare forest antelopes and the white-breasted guineafowl to name a few. This year has marked a very special year for the Gola Forest Programme, given that it finally obtained National Park status in late February. Gola is now the second National Park in Sierra Leone.

Looking to the future, together with BirdLife International, Sierra Leone and Liberian partners, the RSPB are embarking on a trans-boundary project between Sierra Leone and Liberia to establish a peace park between the two countries covering over 200,000 hectares. RSPB fully intends to continue with the Gola Forest Programme and hopes that the National Park announcement can help change the perception of Sierra Leone – that it is again becoming a great place to visit and invest in.

However, the society is very aware of the challenges that lie ahead: pressure to mine the land and hunting are examples of the real and present threats faced. National Park tourism is a long way off, yet the forest received over 100 visitors last year, up from zero in the previous year. In addition to this, two international bird tours visit each year and it is hoped that this can continue to grow and grow.

With the destruction of the rainforest accounting for a quarter of the world's carbon emissions (more than the entire world's transport put together) and loss of tropical forests also threatening the habitat of over 50% of the world's species, now is the time for the people of Wales to be stepping up for nature.

Wales is set to become the first country in the world to mobilise a national response to deforestation and climate change. The RSPB will continue to work internationally to preserve the richness of nature, for the well-being today of every one of us and as an inheritance for future generations.

Lara Hallett *RSPB Cymru Communications Officer,*
www.rspb.org.uk
www.sizeofwales.org.uk

The Americans arrive in Wales

The last few years have seen an unprecedented number of insect species arriving and being reported in the UK for the first time. Some of these are continental European species, which have extended their range rapidly and managed to cross the Channel. Others, perhaps less mobile, have apparently been imported on continental plant material. Of those that survive our winters, some will expand in their range, whilst others require a hotter summer to flourish than we usually enjoy. Most of the species seem to arrive in southern England and expand their distribution from there. Interestingly, the expansion northwards often seems to be more rapid than westwards migration, but eventually some of these species arrive in Wales.

Two plant-feeding true bug (Hemiptera) species have arrived in Wales in the last couple of years, and are genuine alien species. Both are from North America, making their way to the UK via continental Europe.

One of these is the western conifer seed bug, *Leptoglossus occidentalis*, whose native range is considered to be west of the Rocky Mountains in North America. It spread eastwards in the 1950s, reached the American east coast in the 1990s, and was first recorded in Europe in northern Italy in 1999. Spreading rapidly across Europe, it was first detected in the UK in 2007. In the autumn of 2009 came the first sighting in south Wales with further reports from south and mid Wales in 2010. This species is capable of flying long distances, but also can be moved as egg, nymph, or adult with its host plant (conifers). It overwinters as an adult in crevices under bark or other structures. It feeds on the young seeds or flowers of conifer species, with a preference for Pinaceae (*Pinus sp., Pseudotsuga menziesii*), but has also been observed on *Picea, Cedrus, Abies* and *Juniperus*. Feeding may reduce seed fertility and the species is regarded as a pest in its native range, although so far no economic impact is known in Europe. It has conquered a large part of Europe within just a decade. It is quite likely that the coming years will see reports of breeding populations in the UK.

Whilst this bug is relatively large (2cm long) and may be easily noticed and reported, the second true bug recently arrived in Wales is the tiny 3mm long sap-sucking planthopper *Prokelisia marginata*. This species is abundant on the cord grass *Spartina* growing on the extensive US east coast salt marshes. Many US PhD studies have been based around this species and its interactions with plants and predators. Around 15 years ago a chance encounter with *Prokelisia* on the marshes of the Algarve showed it was abundant there as well. It was then found in Slovenia in 2004. In August 2008 it was found, again in abundance (1000 specimens/sqm), on the salt marshes near Southampton and the English south coast, and in Normandy in 2009. That year it was finally found in Wales near Cardiff (and under the Severn Bridge on both sides of the river Severn). A year later it was found to be abundant on the Burry Inlet marshes of north Gower, where there had been no sign of it in 2009. When it arrives, presumably carried by the wind, it seems it can multiply very quickly. It overwinters as small nymphs and may have several generations each summer.

Alien invasive species are one of the great threats to indigenous biodiversity and sometimes have detrimental economic effects as well. These two species seem unlikely to have a major impact on natural ecosytems in the UK, although the abundance of *Prokelisia* on salt marshes may provide an extra food source for spiders. Both, however, show how some alien invader species may disperse over a wide area very rapidly.

W Rabitsch

Leptoglossus occidentalis

Dr Michael Wilson *is a specialist in Hemiptera and Head of Entomology at the National Museum Wales, Cardiff.*

Solutions to flood risks

Trees are great allies in efforts to reduce flood risk, which is likely to rise as the climate changes. New links between Forestry Commission Wales (FCW) and Environment Agency Wales (EAW) have been made, with the addition of an EAW secondee to the FCW team. This partnership will address the needs of the Water Framework Directive; assess forestry risks to the water environment; promote woodlands as a land-use solution to diffuse pollution; deliver and communicate best practice and awareness of these issues both within FCW and the forestry sector in Wales; and work with other public bodies, private sector and voluntary organisations to deliver improvements.

Woodlands and trees can offer solutions to the predicted impacts of climate change in river catchments. In Wales it is predicted that the seasonal distribution of rainfall will change, resulting in more frequent winter flooding, and research suggests that woodlands can play a vital part in flood alleviation. The FCW sponsored FUTUREforest project has produced good practice guides on how to use woodland for flood mitigation (www.futureforest.eu)

Planting new woodland of the right type, in the right place, is one way to manage flood-risk within specific catchments. Small-scale strategically planted shelterbelts and wooded areas can significantly reduce run-off and sediment movement, and improve water quality. Tree planting can reduce peak water flows, intercepting rain in the canopy and holding back water in the soil, thereby helping to reduce flooding.

FCW has produced an 'opportunity map' where woodland has the potential to reduce flood-risk in priority catchments. Coupled with modelling research, this map will be refined further to model priority areas for new woodland, for example by consolidating native woodland. Areas unsuitable for woodland creation, perhaps because of historic or natural features, are excluded.

A recent project by Forest Research in Great Triley Wood near Abergavenny illustrates the benefits of in-stream woody debris for holding back water and preventing downstream flooding. Here the river running through the broadleaved woodland had abundant woody debris but was lacking debris dams due to past clearance. Woody dams were constructed and other debris was allowed to collect naturally behind these structures. This resulted in water levels increasing above them: flow velocities were found to be reduced and out-of-bank flows occurred upstream during high water flows. These dams are simply constructed or can develop naturally and are an ideal tool for minimising flood risks downstream.

As a result of the work in Great Triley Wood, peak flow was delayed. This could, as part of an integrated catchment management approach, be sufficient to protect built up areas downstream from surges of floodwater that breach flood defences. These dams offer a low cost 'soft engineering' option to compliment other flood risk defences.

Wooded headwaters, riparian planting and floodplain woodland may offer the greatest potential to assist flood control. This relies on the hydraulic roughness created by woody debris dams within stream channels, and by the physical presence of trees, shrubs and deadwood on the floodplain. The net effect of these features is to reduce flood velocities, enhance out-of-bank flows, and increase water storage on the floodplain, resulting in overall smaller downstream flooding. Riparian trees also benefit the watercourse by intercepting sediment and nutrients which can cause pollution.

Trees also have great biodiversity benefits, shading watercourses and thus protecting fish stocks by reducing thermal stress, and providing leaf litter, the basic food resource for healthy populations of many aquatic invertebrates.

Dr Helen Cariss *is Environmental Quality Lead, Policy and Programme Development Team & FUTUREforest Project Manager, Forestry Commission Wales*
helen.cariss@forestry.gsi.gov.uk

Islands round-up

Ramsey Island

Ramsey Island, which lies a mile offshore from St. David's, is an RSPB reserve.

Grey Seals

During October a team from the Sea Mammal Research Unit based at the University of St Andrews visited to deploy ten GPS phone tags onto moulted seal pups on our beaches. These devices, which weigh less than 1% of the animal's body weight, are fitted to the back of the neck and have the potential to send back information for up to seven months. When the juvenile seals go into moult the devices will be shed naturally. They store information until the seal comes into range of a mobile network when all the data collected is transmitted back to land.

The aim is to track the movements and record the diving and swimming behaviour of juveniles once they leave the island. This information will allow researchers to relate the observed behaviours with the potential for seals to come into contact with the trial tidal turbine installation, recently granted permission, for Ramsey Sound.

Winter on the island

Greg and I returned from our holidays just in front of the snow that swept across the country, reaching Ramsey just before Christmas. Within a couple of hours we had a good 4 inch covering, certainly the most snow we have had in our six winters here. Our initial excitement was soon overtaken with concern for our livestock and many days of feeding animals and breaking ice followed.

Lisa MOrgan

Grey seal fitted with a phone tag

Bird numbers increased during the cold spell with lapwing, golden plover and woodcock all seeking refuge on the island but not finding much to eat. Fulmars were back on their ledges by Christmas and guillemots were making occasional visits on calm, sunny mornings well into the New Year. Notable by their absence over winter were stonechats, a dearth which was echoed around the Pembrokeshire coast. Breeding numbers on the island fell from 25 pairs in 2009 to 6 pairs in 2010, so it remains to be seen how many will return to breed after a second cold winter.

Spring lambs, seals and puffins

We are now busy lambing for the fourth consecutive year: good hardy Welsh lambs to provide replacements for our aging breeding ewes. Rabbit numbers appear to be on the up, finally recovering after the devastating myxomatosis outbreak in 2006. The seal haul-out sites at the 'Bachelor Pad' and Porth Lleuog are well attended, peaking in mid April with a combined total of over 300 animals. These peak spring counts are remarkably similar from one year to the next.

Our decoy puffins have been deployed for the third year, creating quite a stir among the national media. Sightings of puffins on the water around Ramsey were numerous in 2010, with 106 birds logged between May and July. With more birds in close proximity to the island, there is real potential for re-colonisation.

Stop-press: We are still in the middle of our common bird census walks, but expect half a dozen pairs of stonechats again in 2011 – better than we feared! Highlights of our bird migrants so far are hoopoe and honey buzzard.

Lisa Morgan

Skokholm

Skokholm Island is located off the south west tip of Pembrokeshire, about 4km south of Skomer, its very different big sister. The colony of Manx shearwaters is probably the third largest in the world, containing some 15% of the world population. Breeding storm petrels are about 20% of the EU population.

Natur Cymru (No. 37) has described recently the renovation work being performed on the visitor accommodation. The Wildlife Trust is delighted that Skokholm has been opened during 2011 (until 1 August) for overnight self-catering accommodation. Boats run on Mondays and Fridays allowing 4 and 3 night stays, with five double rooms available. The accommodation is not in its final state at present, and may not have all services operating this summer.

There are also four day trips in 2011, with places still available on 11 July and 8 August.
For further information about booking, phone Island Bookings (Wendy) on 01239 621600 during office hours, or email islands@welshwildlife.org

Bardsey

Winter Birds

As on Ramsey, the arctic conditions on the mainland brought many unusual birds onto the island in December. These included waders such as lapwing, snipe and woodcock which are unable to feed on frozen ground, and often suffer mortality under these conditions. Members of the thrush family poured in. Other highlights included a bittern, four short-eared owls and five woodlarks.

Spring sightings

In March, a plume moth *Emmelina monodactyla* was the 5th island record. April saw the arrival of two subalpine warblers of different races on 20th and 29th. This small warbler is a Bardsey speciality – a pair even built a nest here in 2010. On 30th April around 60 whimbrel flew through on their way north. A four-spotted chaser dragonfly appeared on May 3rd, followed next day by a quail.

Ben Porter

Plume Moth *Emmelina monodactyla*

Ben Porter

Polly the ill-fated ring-necked parakeet

Parakeet finally nobbled

Visitors to the island in 2010 will be familiar with Polly the ring-necked parakeet which dashed around the island screeching loudly. A common sight in London parks but not in North Wales, it was always surprising that it survived the raptors of several species which hunt on Bardsey. Finally in May a female sparrowhawk did get Polly, in full view of the Warden and assembled visitors.

Observatory report

The 2009 Report with full details of all wildlife sightings is available from the Secretary Mike West m.west@sky.com. Almost 200 pages long, it has superb colour pictures of many interesting birds, cetaceans and insects seen on Ynys Enlli in 2009.

*Collated by **Geoff Gibbs** from Bardsey Observatory and WTSWW websites.*

Hysbysfwrdd / Noticeboard

If you would like your wildlife event to feature on these pages please contact us on 01248 387373 or email info@naturcymru.org.uk (entries may be edited). Please mention Natur Cymru if you attend any of these events.

Biodiversity Dates

30 Jul-14 Aug *National Marine Week* www.wildlifetrusts.org
14-15 Sept *Wales Biodiversity Partnership Conference* www.biodiversitywales.org.uk
Autumn *Great Nut Hunt* **www.greatnuthunt.org.uk**
26 Nov-4 Dec *National Tree Week* www.treecouncil.org.uk
5 Dec *International Volunteer Day* www.unvolunteers.org

Fenn's Whixall & Bettisfield Mosses

EVENTS
10 Jul *Dazzling Dragonflies & Damselflies Walk* 2pm with Emma Broad.
31 Jul *All About Your Mosses* 2pm with Joan Daniels.
10 Aug *Mad about the Mosses Children's Activity Day* 10am–2pm.
19 Aug *Bat Walk* with John Morgan 7:30pm.
8 Sept *A Peat-cutter's Life* 1pm with Bill Allmark.
Booking essential. Paul Huxley **01948 880362**
paul.huxley@naturalengland.org.uk
Volunteer Practical Group meets 2nd Sun & 4th Thurs each month. Pete Bowyer **0300 060 0269**
peter.bowyer@naturalengland.org.uk

North East Wales Wildlife

COURSES
Rhydymwyn Valley Nature Reserve
7 Jul *Wildflower Course* 10am-4pm
23 Jul *Moth Course* 9.30am-4pm
Booking essential. Contact **01352 742115 admin@newwildlife.org.uk**

Open University in Wales

18-21 Jul *Royal Welsh Show*, Builth Wells
30 Jul-6 Aug *National Eisteddfod*, Wrexham
Learn about our environment & science courses. Chance to win a Kindle & OU vouchers.
wales@open.ac.uk 029 2047 1170
www.openuniversity.co.uk/wales

Pen Llŷn a Sarnau

EVENTS
29 Jul *Beach Wildlife Fun Day*. Porth Dinllaen 1-4pm
5 Aug *Wildlife Art Workshop*. Penlan Vestry, Penlan St., Pwllheli 1-4pm
11 Aug *Beach Wildlife Fun Day*. Barmouth 1-4pm
12 Sept *Creatures of the night Bat Walk*. Parc Padarn, Llanberis 7.30-9.30pm. Booking essential.
17 Sept *Fungal Foray*. Faenol Estate, Bangor 1.30-3.30pm
Contact **01286 679381**
www.penllynarsarnau.co.uk or **www.gwynedd.gov.uk/biodiversity**

Plas Tan y Bwlch

COURSES
27 Meh/Jun–1 Gor/Jul *Rheolaeth Gadwraethol ar gyfer Coedlannau / Woodland Conservation Management*
4-6 Gor/Jul *Gweledigaethau ac Amcanion ar gyfer Cadwraeth Cynefinoedd / Visions & Objectives for Habitat Conservation*
12-15 Gor/Jul *Sgiliau Adnabod Bioamrywiaeth ar gyfer Gweithio Gyda Phlant / Biodiversity Identification Skills for Working with Children*
18-22 Gor/Jul *Adnabod Planhigion ar gyfer Arolygon, Gwerthuso a Monitro Safleoedd Gwarchod Natur Plant ID / Plant Identification for Surveying, Evaluating & Monitoring Conservation Sites*
8-10 Awst/Aug *Arolwg Cynefin Gradd 1 / Phase 1 Habitat Survey*
5-9 Medi/Sept *Arolygon Bywyd Gwyllt ar gyfer Rhywogaethau Gwarchodedig a CGB / Wildlife Surveying for Protected & BAP Species*
4-7 Hyd/Oct *Dyfrgwn / Otters*
Manylion / Details:
www.plastanybwlch.com neu/or 01766 772600

RSPB North Wales Local Group

FIELD OUTINGS
Contact: Jon Clarke **01492 545984**.
24 Jul *Lake Vyrnwy*, Llanyddyn. 10.30am at Hide/Cafe at Lake. (OS Ref: SJ 018189) Car Sharing Suggested.
18 Sept *RSPB Valley Wetlands & Penrhos Costal Park*. 10.30am at RSPB Car Park (OS Ref: SH 313765)
16 Oct *Foryd Bay, Caernarfon & "The Spinnies", Aber Ogwen*. 10.30am Leisure Park, Cark Park (Not Town Centre Leisure Centre) (OS Ref: SH 474626).
ILLUSTRATED TALKS
7.30pm at St David's Church Hall, Penrhyn Bay, entrance £2
16 Sept *Twin Peaks, Twin Parks (Snowdonia & Slovenia)* by Huw Jenkins
21 Oct *The Biggest Twitch* by Alan Davies & Ruth Miller
www.rspb.org.uk/groups/northwales

Tŷ Newydd National Writers' Centre for Wales

Llanystumdwy, Cricieth, Gwynedd LL52 0LW
9-12 Sept Coastal Wildlife Weekend. Exploring the coastline with naturalist Nigel Brown.
10-15 Oct *Nature Writing* with Nigel Brown & Mark Cocker. Guests: Kim Atkinson & Christine Evans.
Details: **www.tynewydd.org**
01766 522 811

Wildlife Trusts

The Wildlife Trusts offer a huge number of events and courses all over Wales. Contact them for a full programme: **www.welshwildlife.org**
01656 726980
info@welshwildlife.org
Brecknock
www.brecknockwildlifetrust.org.uk
01874 625 708
Gwent
www.gwentwildlife.org 01600 740600
Montgomeryshire
www.montwt.co.uk 01938 555654
North Wales
01248 351541
www.northwaleswildlifetrust.org.uk
Radnorshire
www.radnorshirewildlifetrust.org.uk
01597 823298
South & West Wales
2 Jul *Vascular Plant Identification* Tutor Julian Woodman
27 Aug *Extended Phase 1 Habitat Surveying* Tutor Dr Richard Birch
10 Sept *Bat Identification & Survey Techniques* Tutor Richard Crompton
Call Marie Lindley **01656 724100**

Diolch am y lluniau i / For illustrations, thanks to:
Mandy Marsh, Alastair Robertson

Cemlyn Bay, Anglesey

Number Rhif 32

Number Rhif 33

Number Rhif 34

Number Rhif 35

Number Rhif 36

Number Rhif 37

Number Rhif 38

Natur Cymru cover artists (see pages 20 - 26)

Name	Covers	Info
Kim Atkinson	15, 17, 20, 28	Kim is a member of the Society of Wildlife Artists • www.swla.co.uk
Therese Urbanska	16	www.teska.co.uk • teska_art@hotmail.co.uk
Alastair Robertson	18, 19, 39	Alastair can be reached via the Editor
Prudence Aitken	21	Prudence is now retired
Jane Matthews	22	Jane, a former island resident, is author of Skomer, Portrait of a Welsh Island
David A Light	23	www.dalight.co.uk
Abigail Horsley-Wilson	24	Abigail's work features on several websites www.apob.co.uk • www.deviantart.com
Joyce Fleur	25, 29	Fleur is not producing any artwork at the moment but hopes to do so very soon!
Julie Horner	26	www.butterflypaintings.co.uk • www.britishanimalpaintings.co.uk 01829 250939
Peter Winstanley	27	www.royallfineart.co.uk • peterwinstanley@hotmail.co.uk • 01248 450256
Philip Snow BA	30	www.snowartandbooks.co.uk • www.creationrevelations.co.uk
Christine Garwood	31	www.theoldbankgallery.co.uk
Valerie Land	32	www.valerieland.co.uk
The late John Elwyn	33	John's work is featured on several websites
Ben Stammers	34	Ben works for North Wales Wildlife Trust
Emma Stansfield	35	www.wildlifeimages.eu
Jean Binney	36	Jean teaches botanical art at venues around Wales
Chris Chalk	37	www.chrischalkart.com • chrischalkart@hotmail.co.uk • 01239 615865
David Bellamy	38	www.davidbellamy.co.uk

©Mel PArry Photo Library

Ben Porter

Gorse shield bug

NATUR CYMRU • NATURE OF WALES
SUMMER/HAF 2011

9 771742 374001 06

www.naturcymru.org.uk
www.natureofwales.org.uk

£4.00